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The early Nyāya theory of perceptual knowing and Vācaspati Miśra's revisions of it

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The Early Nyāya Theory of Perceptual Knowing and Vācaspati Miśra's Revisions of It

A thesis presented

by

Scott Garvin Cremer

to

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ABSTRACT

The purpose of this dissertation is to acquire a better understanding of the Nyāya theory of perception and associated issues. Several particular theses pertaining to the Nyāya theory and arguments supporting them are singled out. General formulations are developed from these and corresponding Western theses are used to examine the Nyāya theory.

The Naiyāyika definition of veridical perception includes causal conditions. The content of a veridical perceptual cognition is causally determined by the object alone, the object to which it refers. The fact that the content is causally determined by its referent, however, is not used by the Naiyāyika to distinguish those veridical perceptual cognitions which are proper instances of knowing from those which just happen to be true.

The notion of conception, already embraced by most of the other philosophical schools, is introduce by Vācaspati Miśra into the Nyāya system. Precursors to the Naiyāyika notion of conception are surveyed.

Conceptual perception (*savikalpaka pratyakṣa*) involves the classification of the object perceived; it is the cognition of the components of the current object as properly predicated of (or differentiated by, *viśiṣyate*) one another as well as of prior occurrences of these components. These prior occurrences give the predication meaning. Preconceptual perception (*nirvikalpaka pratyakṣa*) is the awareness of these components

as unpredicated of one another. The content of conceptual cognitions as well as preconceptual cognitions consists in external reals.

Vācaspati Miśra severs the supposedly necessary connection between the naming of the object perceived and the comprehension of it in conceptual perception.

Vācaspati Miśra holds that the predication of some components to the others is an essential difference between the contents of preconceptual and conceptual perception, but overlooks its significance. Definitions of causal determination and cognitive immediacy are formulated and applied to this portion of the content.

Vācaspati Miśra anchors evidential justification (*pramā-jñapti*) on the consciousness of a perceptual cognition of a familiar object. Justification is based on the perception of an external object, not on a phenomenal appearance.

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1
Introduction

The theory of perception is fundamental to the philosophical traditions of both India and the West. The purpose of this dissertation is to acquire a better understanding of the theory of perception and associated issues propounded by one particular Indian school of philosophy, the Nyāya. I shall explore the core philosophical issues surrounding the Nyāya theory of perception by examining these issues in light of classic positions and arguments formulated in general terms.

Several interconnected issues cluster around the theory of perception. I have chosen several of these issues and shall examine each of them individually. My approach will be mostly philosophical, but will at times also be philological and historical. Usually I shall enunciate general versions of the positions and arguments the Naiyāyika and then use these to both classify the Nyāya position and arguments and to expose particular assumptions and implications which are linked to these positions and arguments.

The Nyāya theory of perception is the foundation stone for the Nyāya philosophical system. Major elements of the Nyāya system depend on the Nyāya characterization of the nature and function of perception. If perception is direct, it provides us with access to and evidence of the real, external world. If we can identify in a perception the object which is present with one in the past, we know that objects persist while unperceived. If the content of our perception is determined by the referent of our perception, then it is not a product of our mind. If our access to this world is direct, then we know that

the world is as we think of it, as we perceive it. And if perception is the most basic belief, it will provide the basis for the content and truth of all other beliefs, for the system as whole. The key Nyāya doctrines flow from the Nyāya theory of perception. If the Nyāya theory is modified, its core must be preserved.

Most early discussions in contemporary literature of Naiyāyika theories involving perception are simply descriptions of the Nyāya positions and a few of the associated arguments. These discussions pay little attention to philosophical issues. Many later discussions in addition to locating the Naiyāyika positions within the larger framework of sectarian debates also analyze these positions and arguments and address some of the philosophical issues on the surface. Such discussions fall short; they invariably fail to get to the philosophical heart of the matter. They do not uncover the real underlying philosophical issues. Furthermore, they do not specify what is truly special about the Nyāya version of a given general position. They do not specify those insights which the Naiyāyika contributes nor the assumptions which constrain his conclusions.

A few recent discussions have concentrated on a few crucial underlying philosophical issues. They reveal these issues by isolating the bare bones in the overall dispute and clarify them by the use of comparisons with appropriate examples in Western philosophy. I continue this basic approach but attempt to go one more step. Rather than using unconnected though appropriate comparisons from another tradition, I prefer to enunciate the heart of the dispute in more general terms and use this to sharpen the understanding of the Nyāya position. The results of my investigation will require several modifications to the usual interpretations of the early Nyāya theory of perceptual knowing.

The early Naiyāyika embraces a philosophically sophisticated version of common sense. The Nyāya theory of perception is a form of direct realism – what we see immediately is a part of the real world, which exists independent of our perception of it – but it is not a pure one as it is has usually been characterized.

In the theory of the earlier Naiyāyika the entire content is cognized immediately, its cognition depends on no preceding cognition. In the theory of Vācaspati Miśra, however, a portion is not cognized immediately. The attributes (universals and qualities) and substance substrate which make up the object – not just the attributes as some hold – are still perceived immediately, they are perceived from the outset in the nirvikalpaka stage. But the relationships between them are not. In addition, the elements which play a role in conception – recognition and classification – are also cognized mediately.

The fact that a portion of the content is not immediately cognized does not necessarily mean that it is not a portion of the real, external world nor that its perception is not causally determined by this world.

The earlier Naiyāyika holds that all cognitions are without a form of their own (*nirākāra*) and thus are identical to or refer to a portion of the external world. The notion of formless cognitions, however, is closer to what might be termed direct (or representationless) reference than to the identity of content and referent. Thus the earlier Naiyāyika's claim we will find is weaker than the claim of the naive realist that the content of a perceptual cognition is the actual surface of the external object. Vācaspati Miśra's claim is weaker still.

In the earlier Nyāya theory of perception the cognition of everything which appears in the content of perception is caused by the objects which are perceived. In Vācaspati Miśra's updated theory two portions are not. Again it is the information regarding the arrangement of attributes and substrates and the elements which play a role in conception are unabashedly admitted to be caused by memory rather than by the present physical object which are not.

The latter is not a necessarily a problem for the realist since these components are not perceived as a portion of the present physical object. The former, however, is a significant problem and must be addressed. There are two ways out of this

predicament. One is to claim that the content is caused by a remote cause via a causal chain. The other is to suppose that there is an inhibiting cause in the first stage that once removed allows the information regarding the arrangement to pass through.

The first alternative is unavailable to Vācaspati Miśra because the Nyāya theory of causation does not permit it. The second alternative, although permitted, is not utilized by Vācaspati Miśra. He appears not even to notice the problem. Surprisingly this is a result of the way the original controversy was formulated. This formulation also adversely affects the theory of Diṅnāga.

Vācaspati Miśra's update of the earlier Naiyāyika theory of perception has been only partially understood. Vācaspati Miśra endeavored to add conception to the Nyāya theory of perception within the constraints of its realism. He did not intend to give simply an account of the source of the structure found in the content of cognitions which are expressible. The content of the conceptual stage of perception – the current object differentiated as it is as well as references to past occurrences of the object – are still external reals.

The early Naiyāyika does not hold a full-blown correspondence theory of truth where a perception is true when what is perceived corresponds, or conforms, to what is really the case. He holds a theory which is akin to a simple correspondence theory, what is called a 'minimal theory of truth', but one which does not assert that there is some element common to all veridical cognitions.

The early Naiyāyika theory of error is a theory of transference – what is cognized erroneously is nevertheless made up solely of recollected reals. The apprehension of them, however, is positive according to Vācaspati Miśra and perhaps subjective. This casts doubt on the corresponding element of veridical cognition.

The Naiyāyika distinguishes between the proper source of knowledge and its evidential justification. This is a distinction which was until recently neglected by Western philosophy.

The Naiyāyika theory of the source or origination of knowledge is a causal theory and a variety of reliablism – every instance of knowledge, or true cognition, is the result of a reliable causal and psychological process. The nature and truth of the content of a cognition which is true derives from the external object to which the content refers; the nature and falsity of the content of an erroneous cognition derives from a memory inappropriately triggered.

We find by following a suggestion of Srī Harṣa that the Naiyāyika definitions of knowing and the sources of knowing are deficient in that they do not rule out cognitions such as lucky guesses which happen to be veridical but which are not derived from the object to which they refer. They may, however, allow Vācaspati Miśra to distinguish between veridical and erroneous cognitions without appealing to some property within the cognitions themselves, a significant but elusive goal of a realist. This is an area which was until recently neglected in Western philosophy. But relating the Nyāya theory to recent developments reveals interesting parallels.

The earlier Naiyāyika favors a conditional sort of evidential justification of knowledge – where the evaluation of any one cognition as true depends on the prior evaluation of some other cognition as true. Vācaspati Miśra introduces a foundationalist theory of justification. He founds it upon special class of perceptual cognitions. These are those perceptual cognitions of objects about which one cannot be wrong, objects with which the percipient is thoroughly familiar. Here too Vācaspati Miśra is a realist. Justification is based on the consciousness of a perceptual cognition of an external object rather than on the consciousness of a phenomenal appearance.

This approach is not, as it has been previously supposed, original with Vācaspati Miśra or his teacher Trilocana. It has a precedent in the theory of the Buddhist Sāntarakṣita and perhaps in that of the philosopher-grammarian Bhartṛhari.

Vācaspati Miśra does not found the line of justification on the first stage of perception, preconceptual sensation (nirvikalpaka perception), even though this stage is

always veridical. Thus unlike those who claim that one's initial awareness, the awareness of sense-data, is incorrigible and should thus be the foundation of all knowledge, Vācaspati Miśra does not derive the veridicality of other cognitions from it, though it is a cognition, because the nirvikalpaka stage is inaccessible to consciousness and involves no recognition whatsoever.

These are some of the findings which we will come up with when we examine the early Naiyāyika theories which concern perception. I will explore these theories from a philosophical perspective using the following general but definite approach.

In this dissertation I will analyze the early Nyāya theory of perception. The Nyāya theory of perception is not a single homogenous theory nor a simple bundle of loosely related theories. Perception itself may be a simple phenomenon but it is surrounded by several diverse and complex philosophical disputes. Thus the Nyāya theory of perception is a manifold theory in which the Nyāya stands on each of these philosophical disputes are individually developed and consistently integrated.

I will identify six fundamental stands of the Naiyāyika which figure dominantly in the Nyāya theory of perception and which are all philosophically interesting in their own right. Each of these stands is closely linked to specific and significant disputes and reflect different aspects of perception. These stands together serve to define the Nyāya theory of perception in essence. I will examine each of these stands in various sections of the dissertation in order to clarify more precisely the essential nature, the general type, and the philosophical significance of the stand.

I will also identify three critical arguments which the Naiyāyika must address. These are each associated with one or two of the stands and their examination clarifies the significance of those stands.

For each of these Naiyāyika stands and associated arguments I will seek out an appropriate general formulation or definition from both the Indian and Western traditions. By means of each of these general definitions I will probe the Naiyāyika

version and tease out essential details and characteristics of it which are easy to miss close up.

Vācaspati Miśra updated the early Nyāya theory by incorporating ideas that had long become prevalent. He tried to retain the core of the earlier theory. I will examine the Nyāya theory both before and after Vācaspati Miśra's update in order to better understand the core and see how Vācaspati Miśra went about integrating the new ideas with the old. We will find that Vācaspati Miśra did in fact retain most of the core of the early Nyāya theory by sacrificing some elements which were less crucial.

We will find that the Naiyāyika has worked out a rich and consistent theory of perceptual knowing in response to the many different problems and within the rigid constraints of the Nyāya system as a whole. I will try to explicate the intricacies at the heart of this theory to convey what the Naiyāyika is doing and why.

The bulk of most Indian philosophical texts consists of definitions and associated arguments, rebuttals of objections to author's definitions and refutations of their opponents' definitions. An examination of a particular theory or position of an individual or philosophical school requires more than a mere recitation of a multi-membered definition of perceptual cognition and the associated amplifying discussions. The real significance behind the definition is lacking. The significance of the definition is more evident when the arguments and assumptions which cluster around the definition are considered as well.

When the discussion is limited, however, to particular definitions and associated arguments of a single author or even of a single school, the details specific to that author or school may not always reveal adequately the overall picture or some of the basic underlying assumptions and philosophical issues. In order to minimize these potential shortcomings, I shall take an overall approach which is more general but which will be enlarged and supported by the inclusion of more specific points.[1]

Several distinct basic theses underlie the early Nyāya theory of perceptual knowing. I shall discuss six of these theses and concentrate on three of them. These six individual theses have counterparts in realist theories of the Western philosophical tradition. Drawing from both the Indian and the Western traditions, I have formulated general versions of each these theses.

I shall use this collection of general theses as well as various general formulations of associated arguments (which again correspond to those used in early Nyāya literature) to examine the Nyāya versions. Both of these will be informed by the overall framework of the dispute under discussion.

Each of these several theses is tied to a particular area of contention. The general arguments will comprise a battery of general formulations of arguments each of which is closely tied to one of these areas of contention. They are thus each linked to a particular thesis and will serve to clarify it.

These will be my primary tools for probing the essential nature of the early Nyāya definition of perceptual knowing.

In addition, I shall at the appropriate times bring up and discuss several relevant elements of the overall philosophical framework in which the manifold dispute about perception is rooted. This will include both Nyāya and pan-Indian assumptions, positions and definitions of the opposition, contradictions between assumptions and implications, etc. These discussions will provide additional meaning to many facets of the early Nyāya definition of perception.

The Nyāya overall theory of perception is both a metaphysical theory of perceptual cognition and an epistemological theory of perceptual knowing. As a consequence it includes elements which belong to each of these theories. It is a causal theory – both of perception and of knowing – as well. Thus we shall examine it in the light of a collection of general theses which include theses which pertain to both type of theories.

The following theses have been extracted from both the Indian and the Western traditions – from the positions separately but consistently addressed in each of the Indian realist systems and from the more dispersed and unconnected (though related) positions of Western realist authors.

These theses may not be exhaustive, or sufficient, or even completely logically independent, but are rather representative of the theses which might make up a general definition of perceptual knowing which would cover the particular early Naiyāyika one and will serve us as useful tools with which to probe that early Naiyāyika definition.[2]

These six theses of perceptual knowing will be grouped together into several larger groups. Other groupings are also often met with.

There is a real (transcendent) world.

1) There is an external world of objects which exists independent of its being perceived and is perceptually accessible through different sensory modalities and to different sentient beings.

2) All instances of knowledge, or knowing, are true beliefs: true dispositional beliefs or true occurrent beliefs, veridical cognitions.

Veridical cognitions are perceptual cognitions only if they provide a direct access to and are properly caused by the real, external world (nos. 3-6). A cognition, an occurrent belief, is direct if it is cognitively immediate and its content is identical to the portion of the real, external world to which it refers (nos. 3-4).

3) The content (or cognitive object) of a cognition referring to objects in this world consists in nothing but portions of this external world. The object seen is the object which exists in the world.

4) Every portion of the content is cognized immediately, no portion is cognized mediately. That is, no portion is cognized solely by virtue of cognizing another portion.

The cognition must be properly caused. That is, the cognition must be caused by the conditions which make the cognition veridical, (and for the realist this is) the particular physical object (as connected to a sense) in the case of perception (nos. 5-6).

> 5) The entire content of the cognition is causally determined by, or derived from, the external object (as it is connected to a sense). No portion of the content is mentally constructed or reconstructed (remembered).
>
> 6) The object referred to by the content in the cognition is the very object which determined that content.

Let us now turn to a brief sketch of each thesis. The first thesis states that the world is external to awareness. Its existence and nature are distinct from and independent of the percipient and any perceptual process, mental construction, conceptual scheme, belief system, language, etc. And it would exist and be unchanged even if there were no sentient being whatsoever to perceive it, much less any individual person.[3]

The attributes or aspects of the objects in this world which account for their continuity or change, their similarity or difference, genus or species, causal efficacy or impotence, presence or absence, number, and divisions, etc. are all themselves candidates for individual reification as distinct furniture of the external, real world.

They persist through time while unperceived as well as while perceived and are perceptible at many different times. The nearby apple tree stands while we sleep and continues to stand as we walk by it each morning. They are public: they are perceptible to different sentient beings. Dogs and gnats can perceive this tree as well as humans can. And they are perceptibly accessible through different sensory modalities. The tree, rustling in the wind, may be seen, felt, and heard. And when the object (or whatever attribute or aspect) is seen again it is recognized for what it is. We classify it as an apple tree when we first see it. And thereafter we also identify it as the apple tree which is in our front yard each time we look at it.

Thus many different objects and attributes are candidates for real entities. Which ones are accepted as real vary with the realistic system.

The second thesis (along with the fifth thesis) characterizes perception as a form of knowledge. It states that content of a perceptual cognition is veridical.

Every theory of perception includes some metaphysical characterization of the phenomena of perception as well as a consideration of their reliability or veracity. And every theory of knowledge includes some specification of the bearer of meaning (or information) and truth – sentences, beliefs, or cognitions – and the prerequisite of truth. In a theory which combines the definitional conditions of both perception and knowing, realistic or otherwise, perceptual knowing is usually considered to be as some sort of belief which is properly (reliably) or always veridical. And this veridicality, or truth, of a belief is held to be contingent on something independent of beliefs (or cognition) in general. The favored theory of truth is the correspondence theory, but at least one other meets the realists' needs, the redundancy theory.[4] The precise characterization of the nature of belief and of truth quite naturally varies from school to school, and from author to author.

The third and fourth theses establish that the perceptual cognition is direct.[5]

The third thesis identifies the content of perceptual cognition with a portion of the real, external world. Let us first look at the more general realist's position and then at the direct realist's position.

According to the realist, both the direct and the representational realist, the entire content, or cognitive object, of every perceptual cognition refers cognitively to physical objects or portions of physical objects in the external world. Thus no content or bit of content fails to refer to something in the external world. That is, if anything is cognized in a veridical cognition, then it (or the external referent which makes its cognition veridical) must exist in the external world. There may be, however, objects and constituents of objects, such as atoms, which are not perceptible and do not appear as

contents of perceptual cognitions, although they may be cognizable by other cognitive means such as inference. Whether something can be unknowable in principle and yet real is left in this general thesis as an open question.

According to the direct realist, the content of a perceptual cognition not only refers to a portion of the external world, but it actually is identical to a portion of the external world. The content of a perceptual cognition is a portion of the external world, an external physical object or group of physical objects. Thus an object seen in the content of a perceptual cognition is identical to an object which exists in the external world.[6] For example, the dog which appears in one's perception is a dog which exists in the real world, continues to exist even when it is not being perceived, and is perceived by others as well. No part of any object which appears in a perceptual cognition is not a part of an external object. Thus the content of every perceptual cognition and every bit of it is portion of the real, external world. And again, there may be portions of the world, such as atoms, which are not perceptible, which cannot appear in the content of a perceptual cognition.

The direct realist must, however, address the argument from illusion (or error). He must include in his account of direct perception an explanation of the occurrence of error. He must explain how it is that some of the objects which we see don't really exist in the external, real world. The content of erroneous cognitions does not appear different from that of veridical cognitions - but are they in fact different in any significant way? The realist will be more successful if he can articulate such a difference.[7]

The fourth condition is that the content (of perceptual cognition) be cognized immediately. According to the direct realist one cognizes the external world of objects immediately. That is, one cognizes the external world without any sort of (cognitive) mediation; one cognizes physical objects of the external world without the need to cognize any intermediary, or intervening object.

Thus immediate cognition is generally defined in terms of mediate cognition. Immediate cognition is simply cognition which is not mediate cognition. And what then is mediate cognition?

A cognition is mediate when one cognizes a physical object *by virtue of* cognizing some other object. That is, one can't see a physical object without also cognizing some other object. That is, in order for one object to appear in a cognition another object must in some way first appear in the same or in another cognition as well. Thus there is mediate cognition when the cognition of one object in some way *requires* or is *preceded* by the cognition of another object. There are two ways this might happen. Either one cognition of one object is preceded by another cognition of another object or else a cognition of one object is (logically or conceptually) preceded by the same cognition of another object. Thus either one cognition of an object arises by virtue of the fact that another cognition of a different object arises or else one object is cognized by virtue of the fact that another object is cognized in one and the same cognition.

Cognitive mediacy then is where the cognition of one part of the content requires the (logically, conceptually, temporally, or causally) prior cognition of another, different content, or part of the content. Thus the cognition of one on content or part of the content has a certain precedence or priority to the cognition of another (content or part).[8]

The fifth condition – that the content of perceptual cognition is causally determined by the object – combines the intuitions that knowledge is properly generated, or justified, and that perceptual cognition is the result of a reliable causal process.[9]

Causal determination is a causal relationship between an effect and a subset of its total causal complex. This subset causally determines the nature of the effect when it and it alone is responsible for the nature of the effect. Thus it is that subset of those causes necessary for the production of the effect which dictates the character of the

effect that is the set of determining causes. For example, the (kind of) seed planted determines the kind or nature of the plant which grows forth. An oak seed will determine that the plant which grows will be an oak tree and not a birch or pine. The other causes, the sunlight, water, soil, etc., are necessary for the existence of the oak tree, but not for its essential nature.

In the case of perceptual cognition, out of the totality of causes necessary for the production of a perceptual cognition those causes which determine the nature of the content of perceptual cognition are the determining causes. For the realist a determining cause is usually a portion of the real, external world – one or several physical objects.

A realist holds that the entire content of all veridical perceptions is determined by the external physical object to which it cognitively refers. As a corollary, there is no portion of the content which is determined by something other than the referent, the physical object. That is, no portion of the content is a creation or construction of the mind.

But there is also the possibility of a more liberal interpretation of causal determination. Under this interpretation, the causal chain may be more circuitous, the links less causally proximate, and the process of effectuation less immediate. In particular, some of the links may lie dormant (in the form of memory traces) for a long time between the time they were originally created and the time they are actively involved in causing the effect in question. Though delayed, the determining causal chain would reach from the cognition back to an object experienced a long time before. Such causal determinism might then apply to the other veridical cognitions as well as to perception. They too might be said to be causally determined by their referents. Thus according to this interpretation there is a subset of causes – some of which have a causal path that is circuitous and delayed – which causally determines the nature of the

content of veridical inferential cognitions and perhaps even complex perceptual cognitions as well.

The realist who espouses the condition of causal determination should be able to deal with the classic argument often called "the causal argument." If several different causal chains can end with the same final link, the proximate cause or set of causes of the perceptual cognition, and if it is this proximate cause or set of causes which ultimately determines the nature of the content of the resulting perceptual cognition, then how can a remote object, which initiates any one of these causal chains be said to determine the content of the perceptual cognition? Do we actually perceive only the proximate cause or causes?[10]

The sixth thesis ties together theses two and five. It states that the content of perceptual cognition is causally determined by the same object to which it cognitively refers.[11] The realist holds that the physical object which is cognitively referred to by content of a veridical perception is the very same physical object which causally determined the nature of that content. What we actually perceive (the referent) and what is responsible for that perception (the determining cause) are one and the same, an external physical object.

The realist will also have to address the classic time-lag argument.[12] This claims that all perceptual cognitions are at least partially erroneous in that what they actually refer to may have changed (or even gone out of existence) since the time of causing them. The present perception of a faraway and long since extinguished star cannot but be erroneous. If the object which is the referent of perceptual cognition is identical to the object which is the cause of that cognition, would not most if not all perceptual cognitions then be erroneous? For a perceptual cognition cannot actually refer to an external object (as referent and cause) since the object does not exist (in exactly the same state) simultaneous to the cognition (being the effect of that object). And even

more problematic: how could the object (content) which is cognized ever be identical with the object cognitively referred to?

But it follows that since the objective object (the content) and the referent object are identical (condition #2), all three of these kinds of objects – the object as the determining cause, the object as the referent, and the object as the content of the perception – are one and the same object.

The relationship between the condition that veridical perception be cognitively immediate and the one that it be causally determined by the object which makes it veridical is somewhat unclear. They may not in fact be completely independent conditions. This relationship unfortunately cannot be explored in this work, but their individual function as tools for elucidating the nature of the Nyāya theory of perception remains nonetheless useful.

The above conditions should cover, individually or in combination, most other realistic characterizations of perceptual knowing. These characterizations include: perception is necessarily devoid of any mental construction, it is not augmented by any conceptual interpretation, and it is not the result of an inference.

The Application of these Theses to the Early Nyāya System

Now let us turn to the early Nyāya system itself. I will now introduce and summarize the major disputes and positions of the Nyāya system which I examine in this dissertation according to these six theses and three arguments. This material will be elaborated on in the following chapters where it will be organized differently.

The metaphysics of the early Naiyāyika is strongly realistic.[13] It is not, however, merely a form of common sense realism. It is a sophisticated cluster of philosophical theories which go beyond mere common sense in response to philosophical arguments. It makes abstract distinctions, posits theoretical entities, etc. But it is not ultra-realistic. The Naiyāyika does not go as far as other schools go. For example, he does not, as the

Mīmāṁsakas do, posit the existence of causal powers over and above the physical objects involved in causation or the existence of the property or state of being perceived in a physical object when it is being perceived.[14]

The Naiyāyika recognizes a rich world of real entities, entities the existence and nature of which are independent of their cognition and which are not reducible to other real entities. The Naiyāyika maintains that there are real physical objects which persist through time. These objects can be perceived at different times by means of identification (*pratyabhijñā*).[15] They can be perceived by means of different sense modalities (*saṁplava*).[16] And they can be perceived by different sentient beings. These physical objects are analyzed into distinct particulars and universals, which are abstract. As we shall see in chapter two it is these particulars and universals which provide the bases for the change and continuity of a physical object as well as the similarity and difference between it and others. Substance-particulars provide for continuity of physical objects and quality- and movement-particulars for change.[17] And universals provide for the similarity and difference between particulars (which are their substrates). The Naiyāyika thus recognizes universals and (various kinds of) particulars as distinct real entities. A physical object, or what we shall often call a composite physical object to emphasize its composite nature, is merely a aggregate or composition of these universals and particulars: a substrate, a substance-particular, as individuated by various attributes, quality- and movement-particulars and universals. A composite physical object is not a whole and does not exist over and above these components – although the substance-particular substrate within this aggregate is itself a whole (*avayavin*). It is not a distinct entity, but is reducible to its components and perhaps also to the specific collection and arrangement of these components. This last point will be important in our analysis of the nature of the content of cognition in chapter five.

Not only is the information which determines the similarities and differences of each individual to all other individuals located in the external world, but the

information which determines the relation of each genus to all other genera and to its species and its family is located in the external, real world as well. It is not superimposed *a priori* on the world by an internal conceptual scheme. It must be discovered within the world.

Nonexistent and absent entities as well as existent and present ones are admitted by the Naiyāyika as residents of the real world. Such entities play a useful role in Nyāya metaphysics and epistemology. They take part in the process of causation and function as objects of inference and perception. And that which ties these various entities together into a single physical object, the ontological glue as it were, is also a part of the real world.

The Nyāya metaphysics of causation is also realistic. Causation is not a product of the mind, but is a fact in the external world. It is the invariable sequential relationship between certain entities in the external world, a relationship between individuals rather than between events.[18] There is, however, no special power (*śakti*) or other entity posited over and above the individuals involved.[19] The motivation for such an entity, the plurality of causes, is simply denied to exist.[20] This denial of the plurality of causes – where a particular effect, such as a fire, can be caused by more than one causal complex, one including a spark; another, lightning; another, concentrated light – has far reaching implications for the Nyāya theory of perception as we shall see in chapters six and eight.

Thus the Naiyāyika in order to account for the inhabitants of the real world posits several major categories of ontological entities which are independent of cognition and which cannot be further reduced to more elementary entities. All of these entities can and do participate in the process of causation, the touchstone of existence for the Naiyāyika.[21] And representatives of all of these categories can be perceived.

The early Nyāya theory of truth is straightforward. A cognition that something is the case is veridical, if that to which it pertains is the case. For example, if someone

sees a silver coin and the coin at which he is looking is silver, the perceptual cognition is veridical. The content of the cognition conforms to the actual facts. As we shall see in chapter three the early Naiyāyika does not posit a universal (*sāmānya*) truth, or veridicality, to account for the fact that a cognition is veridical and to distinguish it from cognitions which are not veridical, although later Naiyāyikas do. There is no universal truth, or veridicality, which is common to all veridical cognitions. Thus the early Nyāya theory of truth may not be, as many understand it to be, a proper correspondence theory of truth, since veridical cognitions are not considered to have a *common* element, structure, property, etc. because of which they are veridical.

The content of a veridical cognition is identical to a portion of the real, external world. In fact according to the Naiyāyika the content of every cognition is identical to a portion of the real, external world.[22] This means that the content of cognitions which are of the same thing are essentially the same. The content of a perceptual cognition of a fire is no different qualitatively than the content of an inferential cognition of the same fire, though it may appear more vivid.[23]

Since the contents of many cognitions involve more than a particular portion of the present world, this means that the scope of what a content can be identical to – what we have direct access to – is much more inclusive. This does not mean, however, that the things which make up the world likewise multiply. Some types of cognition give us an abstract view of the world. An indefinite cognition (*saṁśaya*), for example, often gives us a disjunction – we see a goat or a sheep. The referents of such cognitions should be seen as real facts of the world, but not as new and distinct entities in the world.

Ordinarily we assume that we can perceive only a particular portion of the world at the present time and place and that the capacity to cognize abstractions and generalizations about the world lies with other kinds of cognitions. We believe that what we can perceive is limited by what is a particular portion of the world at a

particular time. The Naiyāyika doctrine, however, expands the scope of what can be directly cognized. It uncouples the scope of what can be directly cognized - what portion or aspect of the world a content can be identical to - from the domain of present particular objects and their attributes. Thus the content of a perceptual cognition is a portion of the world, but it is not limited to a particular portion. This allows judgements of identity to be classified as perceptual cognitions.

In the theory of perception propounded by the earlier Naiyāyikas, perception is a unitary cognition resulting from a single-stage process. No prior stage of cognition of any sort is required by perceptual cognition. And none of the constituents of the content of perceptual cognition requires the cognition of any other constituent for its own cognition. Thus the question as to whether perception or a stage of perception is mediate is not an issue for the earlier Naiyāyika. All veridical perceptions are cognitively immediate and all other veridical cognitions are cognitively mediate.

Vācaspati Miśra, however, introduces a two-stage theory of perception. This will be discussed in chapter four. In the first stage the percipient cognizes the various components which make up a composite physical object, but these are not cognized as being predicated of one another. In the second stage the percipient cognizes the composite physical object, a single composition of the components properly predicated of one another. This composition may also include components in addition to those found in the first stage: attributes which belonged to the substrate or other particulars in the past and which at the time of the current cognition provide a context or some meaning to these particulars. This addition allows for some sort of classification of the object or objects. For example, if someone were to see a white horse, he would see at the first stage the individual components as unrelated and unrecognized. He would see the horse substance, the quality white and the universals horseness, whiteness, etc. only in themselves. While he would see the horse, he would not see the horse as a horse. At the second state he would see the horse as a white horse. He would see the horse

substance as qualified, or differentiated, by the universal horseness and the quality white, itself qualified by the universal whiteness. He would see the components as organized and properly predicated and he would recognize the horse for what it is.

The question then arises: is all or any portion of the content, the composite object, which is cognized in the savikalpaka stage of perception not cognized immediately? That is, does the cognition of all or any portion of the content require or necessarily follow the cognition of some other content or portion?

There are three kinds of constituents[24] of the content in the second stage of veridical perception which might not be cognized immediately: those ontological components which make up the external physical object and which are found in the second stage as well as the first, those components whose cognition is brought about by one's memory and thus are found only in the second stage, and the meaningful organization of all of these various components, i.e., the information which specifies the overall predicating organization and particularization of the individual components – the specification of which component is predicated of which other component. According to the Naiyāyika each one of these refers cognitively to a portion of the real, external world. Strictly speaking, each one of these is identical to a portion of the real, external world. The issue is whether or not all of these are cognized immediately?

The components of the present physical object which are cognized are cognized immediately. The cognition of these components does not in general demand the cognition of any other components. But are they cognized mediately when they are cognized for a second time, in the savikalpaka stage? The answer to this is unclear, but it is also not as significant as the previous one. Reasons why they are probably cognized immediately as well are: the components of the present physical object which are cognized in the savikalpaka stage are identical to those cognized in the nirvikalpaka stage and these components themselves are not conditioned by time, which is itself a distinct component. Thus these components are not cognized mediately insofar as the

same component or components are cognized in both stages and as such their cognition does not require the cognition of any other component.

Those components the cognition of which are brought about by memory and are thus only cognized in the second stage are cognized mediately. Their cognition requires the prior cognition of the components which make up the present physical object, the physical object as presently constituted. Should these components not be cognized in the nirvikalpaka stage, then those components contributed by memory would not be cognized in the savikalpaka stage.

We will see that there is a significant informational, or organizational, difference between the content of the nirvikalpaka stage and that of the savikalpaka stage, even excluding those components which refer to past states. This information is not one of the ontological components cognized nor is it spread out among all or any of these components. It is something else. This additional constituent in the savikalpaka stage of perception, the information which specifies which components are predicated of which other components, is cognized mediately. Its cognition requires the prior cognition of the present components in the nirvikalpaka stage. Should these present components not be cognized, this organizing constituent would not then be cognized. Hence when it is cognized, it is cognized mediately.

The notion of cognitive immediacy and its close association with perceptual cognition is actually used in Nyāya philosophy. It is exemplified in one of Udayana's alternative definitions of perceptual cognition. In the *Kusumāñjali* Udayana defines perceptual cognition as a veridical cognition which is not caused by another cognition (*jñānākaraṇaka*).[25] This definition of perceptual cognition would appear to be at odds with the early Naiyāyika account of the origination of savikalpaka perceptual cognition, if it is acknowledged that this stage is caused, at least in part, by the preceding nirvikalpaka perceptual cognition.[26]

But Vācaspati Miśra would point out that the savikalpaka stage is not caused by the previous nirvikalpaka stage. It is rather caused by the same sense-object connection and certain allied accessory causes which had earlier caused the nirvikalpaka stage as well as certain subsequently activated memory traces or intermediary instances of recollection. Furthermore the definition specifically states that perceptual cognition does not have a cognition as its cause par excellence (*karaṇa*) and that the cause par excellence within the entire causal complex which produces the savikalpaka stage is not a cognition but is the sense-object connection alone.

Some later Naiyāyikas undercut this potential problem by analyzing nirvikalpaka cognition as logically prior to the savikalpaka cognition rather than as temporally prior. That is, nirvikalpaka and savikalpaka cognitions are simply aspects of one and the same cognition. Consequently the savikalpaka aspect of perception is not temporally preceded by another cognition, for the nirvikalpaka aspect is no longer accepted as a distinct cognition causally or temporally preceding it. Presumably mental traces are activated directly by the sense-object connection rather than indirectly by a nirvikalpaka stage.

Neither the early account nor the later account of the stages of perception escapes fulfilling our definition of cognitive mediacy, although they do illustrate different varieties of it. In both cases one portion of the content of the savikalpaka stage would not be cognized if another portion were not cognized.

Cognitive mediacy may be logical, conceptual, temporal, and even causal. But it is always between cognitions. Although cognitive mediacy may in some cases be considered to be causal rather than logical, conceptual, or temporal it is always a relation between the contents of cognitions. Inferential cognitions are cognitively mediate insofar as they necessarily follow other cognitions, often perceptual cognitions; they follow them because they are based on them, causally and logically. A perceptual cognition which is caused by the presence of certain external objects and thus requires

a certain causal complex of external objects but which is not necessarily preceded by a prior cognition is not cognitively mediated, that is, it does not require the cognition of some other content. If it is reliably caused, if it springs from proper causes, it will be a true cognition.

While the Naiyāyika defines knowledge in terms of truth and not in terms of its origin, he nonetheless also holds that knowledge, a veridical cognition, will necessarily be derived from a proper set of reasons. The Naiyāyikas hold that every instance of knowledge is the result of a specific complex of necessary and sufficient reasons which are simultaneously both causal and logical in nature and function. If this complex is present, a veridical cognition must arise. Thus the Nyāya theory is called a reliable theory. There is little room for error given the proper conditions, in fact according to the Naiyāyika there is no room. But the Naiyāyika also holds that the proper complex of reasons is the only set of reasons which will produce a veridical cognition. There are no sources of veridical cognitions which are not sources of knowledge. And thus there are no veridical cognitions which are not instances of knowledge. This is sharply attacked by opponents.

When the causal complex which will produce a veridical perceptual cognition is in place, that entity among the complex which will causally determine the nature of the content of the cognition will also determine the veridicality of the cognition. When a perceptual cognition is veridical, the object to which the content of that cognition successfully refers will causally determine the nature of that content. Thus the object as connected to a sense causally determines the content of a veridical perceptual cognition.

The Causal Argument

The causal determination of the content of a perceptual cognition by what is also the referent of that content brings us to an argument which is found in both the Indian

and Western traditions and which will be the topic of chapter six. It has strongly influenced the Naiyāyika theory of perception.

In as much as a cognition is actually produced by its most proximate cause or causes and not by some cause of a cause ... of this proximate cause, if it derives its nature from anything, it must derive its nature as well as existence from the proximate cause. It should then also refer to this proximate cause. That is, in as much as a cognition is actually produced by some electrical activity in the brain or by a conjunction of the mind (*manas*) with the self (*ātman*) and not by some object which is far away and whose apprehension is thus necessarily mediated by light, the cognition must be what it is because of the brain activity or the mind-self conjunction and so it must actually refer to that activity or conjunction.

The Naiyāyika believes that it is the physical object which causally determines the content of perceptual cognitions. He also believes, however, that only entities which are proximate can actually cause the origination and nature of their effects. Thus the Naiyāyika cannot accept a causal chain from a physical object to the cognition of that physical object, for according to his assumptions either the last link in the chain, the proximate cause, and not the physical object causally determines the content of the cognition or else the physical object, a remote cause, and not the proximate cause causes the resulting cognition and content.

The Naiyāyika simply shrinks the causal chain leading up to perceptual cognition to the point where there are no intermediary causes, only the initial causal complex and the final effect; the proximate cause of perceptual cognition just is the physical object (as connected with the sense) along with its auxiliary causes.[27] Thus it is the proximate cause, the physical object, which determines what is cognized, the physical object.

This argument is in harmony with the Nyāya belief that all causation is proximate and not remote or indirect, while at the same time retaining the realistic assumption that

the determining causes of the cognition of our cognitive objects are external physical objects.

Causal Determination

Let us turn to the early Naiyāyika's version of the causal determination of perceptual cognition which is treated in chapter three. The early Naiyāyika holds the simple realistic tenet that the content of perception not only refers to but actually is a portion of the present external world. He also holds that the object which makes the content of a perception veridical is the object which causally determines the content.[28]

All of the content (*viṣaya*) of a veridical perceptual cognition is causally determined by the external object to which it refers. That is, the awareness of no portion of the cognitive object, or content, is determined by anything other than the causal object, the external object as connected to a sense faculty.

But when the content of a perceptual cognition, in whole or in part, is determined by something other than the external object, the content is wholly or partially erroneous. That specific portion which is not determined the external object will be erroneous. Thus the source of error is not the external world. It is an inappropriately activated memory trace. Thus in the case of erroneous cognitions the determining cause is not the external object to which it refers, but a memory trace.

Indeed, for the early Naiyāyika if a perceptual cognition is veridical it will necessarily be casually determined by the object as connected to a sense, its referent. And if the entire content of a perceptual cognition is causally determined by the object, its referent, it will necessarily be veridical. If any part of the content is determined by anything other than the object to which it refers, it will be erroneous. And if it is erroneous, part of the content is not determined by the object.

Causal Determination in Vācaspati Miśra's Theory

When Vācaspati Miśra modifies the earlier Nyāya theory of perception to include conception, as we shall see in chapter four, he weakens the Naiyāyika realistic stance on the causal determination of the content of perception. Vācaspati Miśra divides the process of perception into several stages.

When the object is connected to a sense a cognition the content of which contains simply the components which make up the object but which are not arranged into the object is produced. This is the nirvikalpaka stage of perception. This cognition activates the appropriate memory traces which in turn produces a recollection of a past occurrence of the object and perhaps past instantiations of its attributes. This past occurrence is the object as it was when it was perceived earlier and given its name for the first time. This recollection together with the continuing sense-object connection produces a cognition which the object is classified and amenable to expression. This conceptual perception is savikalpaka stage of perception. The components of the present object are arranged along with those components of the earlier time and produce a conceptual integrated object.

That portion of the physical object which is connected to the sense is cognized in the first stage of perception. But it is not cognized as a single, integral unit. Rather each component of the physical object which is connected to the sense is cognized in itself. The cognition of each component in the nirvikalpaka cognition is causally determined by the correlative component of the physical object which is connected to a sense.

Though these components are cognized, the information which binds these components together is not cognized at this stage. This information exists in the external object, and is cognized in the second stage, and presumably is or could be

picked up by the sense. It does not, however, causally determine its own cognition in the nirvikalpaka stage, for again this predicative information is not here cognized.

The content of the subsequent savikalpaka perceptual cognition is significantly different from that of the preceding nirvikalpaka cognition. It includes the components cognized in the nirvikalpaka stage. It also includes components which were not cognized in the nirvikalpaka stage. These are attributes of the object in the past. These were components of the object, the substance substrate, at the time at which the percipient first learned the concept of and word for the object. And the final constituent is the arrangement and predication of all of these components. All of these components are arranged together into a single composite object or group of objects. The information found in this arrangement is unique to the savikalpaka stage.

The cognition of those components which were also cognized in the preceding nirvikalpaka stage is causally determined by the same causes which determined the cognition of them in that preceding stage, the external object. No causes of the first stage are lost in the second stage.

The cognition of those components which were not cognized in the nirvikalpaka stage but only in the instance of recollection produced by that nirvikalpaka stage are causally determined by that instance of recollection. The determining cause must be one of the causes of the second causal complex. Among these causes, the cognition of these components is correlated with the presence of new causes, causes not in the original causal complex. This leaves only the prior instance of recollection as a possible determining cause. We will find, however, that under one interesting and illuminating interpretation of causal determination the cognition of these components can still be considered to be the external object. Briefly, this interpretation links the cognition of these components in the savikalpaka stage to the cognition of other components in the nirvikalpaka stage which is in turn linked to the external object. This is unacceptable to

the Naiyāyika as it stands, for he would insist that what we term a determining cause be an immediate, or proximate, cause.

Similarly the determining cause of a cognition of the overall arrangement of all of the components cannot be the external object. This cognition is not correlated with the external object as connected with a sense, but with the preceding instance of recollection. If there is but one unitary arrangement, it must be causally determined by something other than the external object, that is, by memory.

It is possible that different portions of the overall arrangement might be determined by different determining causes. The cognition of that portion of the overall arrangement which pertains to the components which were cognized in the prior nirvikalpaka stage and which are components of the present physical object may be causally determined by the actual arrangement of the components of present external object. This arrangement is presumably connected with the sense in some way. This could be accounted for by showing that the cognition of this portion is contingent upon the presence of those causes which produced the nirvikalpaka stage as well as the addition of catalytic causes or the removal of earlier inhibitory causes. The cognition of that portion of the overall arrangement which pertains to the components which are not present, but were attributes of the substrate at a certain time in the past cannot be determined by anything other than the preceding instance of remembering memory stage.

It is also possible that these portions might be causally determined by or at least indirectly influenced by remote objects or events. While this too, strictly speaking, is not allowable in the Nyāya position as it stands – since the Naiyāyika is convinced by the causal argument, which we will discuss in chapter six, that causal determination cannot be effected by remote causes – the Naiyāyika would likely offer that the actual arrangement of the external physical object, past and present, is in some way responsible for the nature of the arrangement actually seen in the savikalpaka stage,

much as the initial sound in the expanding sphere of continuously reproduced sounds, a kind of causal chain, is responsible for the nature of the final sound in the ear which is the sound which is actually perceived.

A causal theory of perception like the Naiyāyika's stipulates that the object which causally determines the content of a cognition is identical to the object to which that cognition refers. This invariably occasions an objection in the form of the time-lag argument. Even the Naiyāyika's understanding of determination as being proximate does not exempt him.

Vācaspati Miśra is sensitive to the problem occasioned by the discrepancy between the time a sense makes contact with an object and the time the cognition of that object arises. Since a cause always precedes its effect, an object when it acts as a cause of a certain perceptual cognition must precede that perceptual cognition. Thus the cognition will be of the object as it existed some time before the cognition itself. And the object may have changed or gone out of existence by the time the cognition has itself come into existence. This is a common criticism of realistic causal theories. Vācaspati Miśra holds, however, that it does not touch his causal theory. His position is that the primary cause of the cognition, the external object, continues to exist and sustain the cognition after having first produced the cognition and is thus still present at the time of the cognition as well as at the instant before its production. Thus perceptual cognition does properly refer to the external object which is its cause.

He may also leave room for an alternative solution, one which accounts for yogic perception. A perceptual cognition does not need to exist itself at the same time that the object initially caused the cognition, but must rather *refer to*, or represent, the object *as existing* at that time. For example, a perceptual cognition of a far away and long ago extinguished star would not need to exist at the time of the star in order to fulfill the condition under consideration, but must rather represent the star as existing (as it did) in the past. Such a variety of perception is acknowledged to exist in the case of yogis

who are able to perceive objects and events which are far away in time as well as space.

These theses will be developed and supported further in the following chapters. Other related issues of importance will be explored too.

Here are brief summaries of the following chapters. Chapter two places perception within the Naiyāyika's metaphysical scheme. Perception is a quality-particular which arises in the self. Chapter three discusses the theory of perceptual knowing according to the earlier Naiyāyika. The Nyāya theory of perception is shown to be a causal theory of knowing as well as a causal theory of perception. The early Nyāya definition of knowing is given and the origins of veridical perceptual cognitions are explored. Causal determination by the referent of a perceptual cognition is seen to be concomitant with its truth. Chapter four surveys earlier introductions of the notion of conception into the philosophical systems of both rivals and allies of the Naiyāyika and gives some of the antecedents in the Nyāya system as well. In chapter five Vācaspati Miśra's update of the Nyāya theory of perception is presented. Vācaspati Miśra posits two stages of perception; one, conceptual and the other, preconceptual. The nature of these two stages is examined. Vācaspati Miśra's severance of conception and language as well as his insistence that the savikalpaka perceptions are still perception because they are sense-object connection produced are discussed. Chapter six discusses some of the philosophical implications which follow from the modifications made by Vācaspati Miśra. Two of the arguments against a causal theory of perception are examined in chapter seven. The Naiyāyika's answer to the time-lag argument is found in his metaphysics. The way of operation of one's sense faculties avoids the causal, or physiological, argument. Chapter eight discusses the Nyāya theories of knowing and the production of knowing and a shortcoming in the formulation of the definition of knowing. Chapter

nine examines Vācaspati Miśra's solution to the major criticism of the earlier Naiyāyika's theory of truth-ascertainment.

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[1] I assume that there is no incommensurability between the various theories of the protagonists, or that if there is, it is not so great as to deny the real existence of the problem which underlies the controversies under consideration and the possibility that it can be formulated generally.

[2] These theses could be cobbled together and construed as a general definition of perceptual knowing which closely fits the particular definition of the Naiyāyika. The Naiyāyika definition ought then to be a particular instance of this general definition.

[3] Although most contemporary discussions of realism is derived from Dummett's recent reformulation in his "Realism", it will serve our purposes better to stick to the traditional theory which is common to both the Western and Indian traditions.

[4] See Paul Horwich, *Truth*, for a detailed discussion of the redundancy theory of truth and its difference from the correspondence theory.

[5] J. W. Cornman's formulation of a conditional definition of naive realism in his *Perception, Common Sense, and Science* was useful in formulating these two theses.

[6] See also Maurice Mandlebaum, *Philosophy, Science, and Sense Perception*, pp. 118-122.

[7] See Jonathan Dancy, *Introduction to Contemporary Epistemology*, p. 170.

[8] This formulation is essentially that of Cornman. Cf. that of Frank Jackson in *Perception: A Representative Theory*, pp. 6-69.

[9] See H. P. Grice, "A Causal Theory of Perception" and Alvin I. Goldman "Discrimination and Perceptual Knowledge" for two of earlier, influential formulations of the causal theory of perception. See also Fred Dretske and Berent Enç "Causal Theories of Knowledge."

[10] See D. M. Armstrong, *Perception and the Physical World*, pp. 141-144 and Bertrand Russell, *Outline of Philosophy*, p. 292.

[11] See Dretske and Enç, "Causal Theories of Knowledge," p. 517.

[12] See R. J. Hirst, *The Problems of Perception*, pp. 22-23 and Armstrong, pp. 144-152.

[13] I shall use the term 'early Naiyāyika' to refer to the Naiyāyikas beginning with Gautama and ending with Vācaspati Miśra and the term 'earlier Naiyāyika' to refer to those Naiyāyikas who preceded Vācaspati Miśra.

I follow the Naiyāyika chronology accepted by Karl Potter in his *Indian Metaphysics and Epistemology: The Tradition of Nyāya-Vaiśeṣika up to Gaṅgeśa*. He concludes that Gautama's date is truly uncertain, though he must have lived several centuries before Vātsyāyana. He gives the late fifth century for Vātsyāyana, the first half of the seventh for Uddyotakara, the late ninth for Jayanta Bhaṭṭa, and the late tenth for Vācaspati Miśra.

[14] See *NVTT*(K), p. 103.

[15] See *NBh* III.1.7.

[16] See *NVTT*, pp. 17-20.

[17] Particulars can persist through time and universals can be instantiated in multiple particulars.

[18] See Sadananda Bhaduri, *Studies in Nyāya-Vaiśeṣika Metaphysics*, chp. XII and Karl H. Potter, *Indian Metaphysics and Epistemology*, pp. 154-168.

[19] See *NVTT*, p. 103.

[20] In fact, in order to justify certain kinds of inferences – those from an effect to its cause – strict causation (the opposite of the plurality of causes) is presumed. One can infer from the fact that a river is swollen in a certain way to the cause of its being swollen, since rivers swollen from damning differ from those swollen from flooding. See *NS* and *NBh* 2.1.38-39

[21] See Bhaduri, p. 20.

[22] This is the position that cognitions (*jñāna*) are without a form of their own (*nirākāra*). This will be discussed in chapters two and five.

[23] Just as the fire on a mountain seen in a perceptual cognition is not qualitatively different from the fire on a mountain cognized in an inferential cognition, the fire on a mountain seen in an erroneous perceptual cognition is similarly not different qualitiatively from the fire on a mountain seen in a veridical perceptual cognition. The fire seen in the erroneous perceptual cognition is just as real as the mountain, though it is remembered rather than directly cognized. The relation between the fire and the mountain, however, is unreal, though external. This will be returned to in chapter three and five.

[24] 'Component' will be used to refer to those ontological entities which make up the physical object which comprises the content of a cognition, while 'consitutent' will be used to refer to any portion or aspect of the cognition, including the arrangement of components and the awareness itself.

[25] See S. C. Chatterjee, *The Nyāya Theory of Knowledge*, p. 140.

[26] Actually this is avoided when recollection is replaced as one of the causes of savikalpaka perception by an activated memory trace, an option given by VM which is embraced by later Naiyāyikas.

[27] As we shall see in chapter six, the Naiyāyika believes that there must be a proximate connection between the object and the sense and if the object cannot come to the sense, then the sense must go to the object.

[28] The distinction here is between the grounds which fix or decide the veridicality of a cognition and the causes which give rise to the cognition. A cognition of a cow is veridical, if there is a cow to which it refers. It arises, when there is a cow which is connected with a sense.

2
The Place of Perception in Nyāya Metaphysics

Perception is found at the center of most of the major problems in Indian philosophy: the character of one's thoughts and experiences, the existence of an independent reality and its nature, the justification of one's beliefs or cognitions, and the meaning and nature of language. There was a large degree of mutual influence in the development of these spheres, both within the systems of the individual schools and between them. We will deal with most of these issues in their place, but first we must take a detailed look at perception itself. In doing this, we will begin by discussing some basic concepts which are held for the most part by all mainstream early Naiyāyikas.[1]

One fundamental point concerning perception[2] about which all of the Indian philosophical schools agree is that it is a *jñāna*, a cognition. So we shall begin by examining cognition.[3] Indian philosophical schools regard cognition as a fundamental notion of epistemology; knowing ((*pramā*), is for them a special kind of cognition. They do not, however, agree as to what cognition is. And each analysis naturally reflects the presuppositions and motivations of the school's system.

Cognition, for the Naiyāyika, is essentially awareness.[4] But it is not simply awareness; it is always an awareness of something.[5] This something is the cognitive object or contents of the cognition (*viṣaya*). When one has a cognition, whether it is a perception or an inference, a recollection, a dream, an erroneous perception, or even a doubt, an indefinite cognition, where one is unsure whether one sees, for example, a

bear or a man in the distance, there is in it something towards which one's awareness is directed. All cognitions have contents for the Naiyāyika.

An awareness, however, is never reflexive for the Naiyāyika as it is for some of the other schools. The reflective awareness or self-consciousness which often accompanies our cognitions when we attend to them, when we are conscious that we are aware of something else, and the "mindfulness" which is cultivated through meditation in some schools is not considered by the Naiyāyika to be an intrinsic component of cognition. It is rather an accompanying cognition or more precisely a perceptual cognition which follows and takes as its object the preceding cognition. We are in this way aware of our being aware of some object. We are aware of our previous cognition, which is an awareness of that object.

The Nyāya analysis of cognition (*jñāna*) (which, as we shall see, serves many of the same functions as the beliefs and propositions of contemporary Western philosophy, chief among them is that it is the bearer of truth-value) logically precludes the sorts of self-referential paradoxes that came to light around the turn of this century concerning a small but significant subset of sentences, propositions, etc.[6] A well-known example is the following sentence: "This (very) sentence is false." Since it refers to itself, if it were false, then it would be true, and if it were true, then it would be false.[7] Since the Naiyāyika does not recognize reflexive or self-referential cognitions, he cannot be confronted with such analogous cognitions as "I have a cognition that this very cognition is false." These sorts of cognitions just are not in reality possible. That is to say, as far as the Naiyāyika is concerned it is an empirical fact that cognitions are never reflexive. It is unnecessary to resort to anything else to rule them out, such as a stipulation to the effect that if we disallow them the system as a whole will be more consistent and trouble-free.

The Naiyāyika acknowledges that we are not always conscious of our perceptions. A habitual act which we perform unconsciously such as seeing (and consequently

avoiding) a pothole without it ever registering in our consciousness would still be a cognition. There is an object towards which our cognition is directed and towards which we respond. We simply have not brought it into consciousness by turning our attention to this very cognition and then cognizing it. Thus there are cognitions of which we are not aware; selfconsciousness is not intrinsic to cognitions.[8]

If we escape some problems because a cognition is never reflexive, but always requires another cognition to become conscious, are we then susceptible to other problems, such as the possibility that the second cognition will require a third, and the third, a fourth, and so forth ad infinitum? The Naiyāyika answer is simply that we don't need and in fact we don't really ever have an awareness of an awareness of an awareness of an object. After all we sometimes do not even have an awareness of an awareness.[9] Thus the regression never moves beyond the stage of the second cognition.

In the Nyāya system, there is no pure consciousness or awareness either, no awareness devoid of any content or object.[10] Unlike many of the other Indian schools, Nyāya does not recognize pure consciousness to be a valid and necessary meditational state. It thus has no need to account for it in its overall theory.

Thus there is neither pure consciousness, awareness without an object; nor self-consciousness, awareness which takes itself as an object. Awareness is always transitive; never intransitive and never reflexive.

Here a brief discussion of and comparison with the English word 'belief' might be instructive, since, as we shall see later, cognition (*jñāna*) often serves many of the same functions in Indian epistemology that belief does in Western epistemology. For example, in Indian epistemology, it is cognition which is the bearer of truth-value and the object of justification, whereas in the West it is belief or one of the closely associated notions of sentence, statement, or proposition. Thus, for the Naiyāyika, knowing or at least its analogue in his system is a special kind of cognition, not a belief.

The Sanskrit word '*jñāna*' and its English translation 'cognition' both refer to occurrents, that is, to something which comes into existence for a time, abides temporarily, and then disappears. A belief, on the other hand, is generally considered to be a dispositional property.[11] It is a tendency or capacity. One is not constantly entertaining what one believes during the time in which one believes it. But at any time, under the right conditions, it may come to mind. Recently, it has been suggested that belief is a long-term or continuing mental state; this, however, would be closer to the Sanskrit notion of a memory trace or latent power (*bhavanā-saṁskāra*). A minority opinion, less often voiced today, is closer to the Indian concept in that it analyzes belief as a mental act or occurrence; that is, it is a belief when it is being entertained. There is, in fact, a distinction found in the philosophy of mind between occurrent beliefs and dispositional beliefs which does mirror many of the basic functions of two quite different but connected Nyāya entities.

In addition, a belief admits of degrees, though this is not usually pursued. I may believe something very strongly or only a little bit and this will usually be reflected in my decisions and behavior. And a belief may be strengthened or weakened over time.

This characteristic does apply to one's memory traces (*bhavanā-saṁskāra*), but not to cognitions (*jñāna*). A cognition either arises or it does not depending on whether certain conditions are met. And, as we shall see, the conditions for, or causes of, each and every cognition are unique, consequently any single cognition including an instance of knowing cannot be overdetermined or underdetermined. Furthermore, any degree of conviction that I possess concerning the existence of the contents of a cognition is located outside the cognition itself, since a cognition is nothing but the awareness its contents. On the other hand, a cognition, like a belief, may be ascertained by us to be justified in varying degrees. That is, we may be aware of and take into account different types and amounts of evidence bearing on the truth of a cognition or a belief.

There is another related characteristics of belief that is also sometimes attributed to cognitions (*jñāna*) – at least to some cognitions, those which are of the most concern to epistemology, those which can be true or false. It is determination or judgment. One's rational thoughts are usually not uncertain or indefinite. The content is not just loosely strung together. We do not see disconnected objects nor do we hold beliefs which are irresolute.

Both of these properties are also important to Nyāya epistemology, but they are distributed or located within its system differently. On the one hand, there is considered to be a separate subclass of cognitions in which one's judgment is suspended. The cognition in which one thinks, "is that a bear or a man in the distance?" would be an example of such a cognition. These are doubts; uncertain, or indefinite, cognitions (*saṁśaya*). There is also, of course, another subclass in which a judgement or determination is made, definite cognitions (*niścaya-jñāna*).[12] For example, when one thinks, "that is a man (and not a bear)." This is much larger and includes veridical and erroneous cognitions, as well as recollections, dreams, etc. This kind of cognition is very close to what is called an occurrent belief. However, it should be noted that a definite cognition (*niścaya-jñāna*) is distinguished from a doubt, or indefinite cognition, (*saṁśaya*) not by any difference in psychological attitude towards the cognitive object, but by the cognitive object itself. This is quite different from a Western analysis of mental states where the difference between two sorts of mental states is often considered to be a difference in the attitude toward one and the same proposition. For example, "I see *p*" and "do I (really) see *p*" both contain the same proposition, but differ in their propositional attitudes. On the other hand, the conviction element in cognition is minimized (at least in discussion), as it is often even in the Western conception of cognition, though less often in the conception of belief. But it is not unaccounted for. It is generally after a cognition that one accepts or "takes" the contents and because of objectives or feelings of desire subsequently acts. It is

problematic as to whether or not one must first ascertain the truth of the cognition (in order to be convinced of its truth) before one acts, or whether one can do so only afterwards. This, too, will have to be postponed until later in this paper.

In fact, there is no single equivalent word in Sanskrit for 'belief' which is employed with the same range of meanings and functions as it is. It would more useful to compare the whole mechanism of cognition – from the storage of a mental trace (*bhavanā-saṁskāra*), through its activation from the contact of the senses and their object, to the production of a definite cognition (*niścaya-jñāna*) – to its analogue in the Western tradition (which would itself include dispositional belief). This will be done somewhat in the course of examining perception and origination of cognitions.

Now that we have a general idea of the nature of cognition, we can place it within the overall Nyāya system.

The basic ontological categories of a philosophical system both fix what exists and determine its nature. It is not just the category to which an entity is assigned which is relevant: the other categories, its own subcategories, as well as the overall organizational framework of the categories, also contribute to its meaning. The next step, then, is to locate cognition within the Nyāya categories.

These categories were, of course, formed through many different and sometimes competing philosophical pressures. In some cases basic intuitions were preserved, in others the explanations or solutions of philosophical problems, often rarefied, took precedence. Yet in others, points of traditional doctrine were strongly motivating factors.

At the time of Vācaspati Miśra, the classes of ontological entities or categories (*padārthas*) accepted by the Nyāya numbered seven: substance (*dravya*), quality (*guṇa*), movement (*karman*), generic-property or universal (*sāmānya*), (ultimate) differentiating-property (*viśeṣa*), inherence (*samavāya*), and absence (*abhāva*).[13] Cognition naturally comes under one and only one of these. Of these seven, only the first three

are considered particulars. They are the particulars which populate the world: the cows and the mountains, the patches of blue and the hoots of an owl, the episodes of running and of flying, etc. It is one of these three which includes cognition: substance, property, or movement.

The first category to consider is substance (dravya). This includes the objects of everyday life as well as the atoms which compose them. This is the most basic class, as Nyāya's ontology is a substance-oriented ontology rather than an event-oriented ontology.

Cognition is considered to inhere in or be a property of the conscious self (*ātman*), which is a substance, and since one substance in the Nyāya system cannot inhere in another substance, a cognition cannot itself be a substance.

Cognition is not an instance of a movement (*karman*) of the self, either, because movement takes place in space and belongs only to corporeal substances and the self is not a corporeal substance. In addition to a conscious self and five senses, everyone has a another faculty, the inner faculty (*manas*), which is the arbitrator of attention.[14] It is a corporeal substance, and by moving and thereby making contact with the senses it accomplishes its function of determining which sense is active.[15] Being a corporeal substance, it is not sentient. The substance self, however, being sentient, is not corporeal. The self is all-pervading and unable to move – in any direction. Thus, since the substrate of cognitions, the self, cannot be the substrate for any movements, cognition cannot be a movement. And on the other hand, what movement means to the Naiyāyika – motion up and down, forwards and backwards, contraction and expansion, and so forth – is not the sort of activity by which one would normally characterize cognition.

Other schools, however, see the category in their ontological system which corresponds to the Nyāya category of movement (*karman*) differently. The Mīmāṁsakas, in particular, characterize act (*kriyā*) much more broadly and thus are able to place

cognition within it. [16] But they then go on and attribute to cognition the capacity – indeed, the need – to affect the object itself, something the Naiyāyika will not allow.

What are ordinarily thought of as acts, actions, activities, etc., the usual sense of verbs, is a large and diverse class. If, from among these, simple movements are placed into a category of their own, then into which category of the Nyāya ontological scheme are the rest of these acts, actions, etc. to be placed? And if they are not a distinct subclass of a category, what are they?

What are ordinarily thought of as acts and actions but which are not movements are not left unaccounted for by the Naiyāyika. Some of these acts and actions are classified in the Nyāya system as properties or varieties of properties. For example, the act of wanting or desiring (something). Others are broken up into several components, some of which may be properties and others, movements. The act of boiling rice, for example, consists of fetching firewood, starting a fire, washing the rice and placing it in a pot, putting the pot on the fire, and so forth. These are further broken down. Fetching the firewood consists of going to the woodpile, a movement, picking up the firewood, which is in turn broken down ever further into bending over and reaching for the wood, movements of parts of the body, creating a contact between ones hands and the firewood, a property, and so on and so forth. Thus acts and actions, though not equivalent to a single and distinct category themselves, are nevertheless explained in terms of the ontological categories of the Nyāya system as a whole.

'*Jñāna*' is usually considered by the Naiyāyika to be a resultative noun.[17] This implies that a cognition is generated by a previous cause or causes. In some cases, the causes include the contact of one of the senses with the object to be cognized; in others, the previous cognition. Thus cognition is analyzed in terms of a single causal framework which combines elements of both an objective perspective (or a third person perspective) and a subjective perspective (a first person perspective). The Naiyāyika approach includes psychological (behavioral), physiological, and physical elements as

well as psychological (cognitive) and phenomenological ones. Epistemology is not purely phenomenological or logical for the Naiyāyika. This theme will recur constantly in the chapters to come.

The division between result and instrument is, on the other hand, more relevant to the word '*pramāṇa*' (which is formed in the same way as '*jñāna*'). It has two meanings, depending on whether it is taken as a resultative noun or as an instrumental noun. If it is taken as an instrumental noun, it has the meaning of source of knowledge, or knowing, (as an instrument or means) (*pramāṇa* = *pramākāraṇa*); if it is taken as a resultative noun, it has the meaning of knowledge itself (as a result) (*pramāṇa* = *pramā*).

Since a cognition is neither a substance nor a movement, we are left with the category of quality (*guṇa*), a catch-all category which includes all of the attributes of substance (as their substrate) except for basic physical movements, which are even themselves absorbed into the category of property in the systems of a few Naiyāyikas.[18] Cognitions, then, are properties. We shall now examine cognitions as properties to see how cognitions fit into the category of property and what the characteristics of properties tells us about cognitions.

The first characteristic of qualities which is relevant to cognition is the fact that each one of them requires an individual substance in which to inhere. In the case of a cognition, this substance is the *ātman*, which is translated as 'soul' as well as 'self'. We will use 'self'. The self also serves as the seat of consciousness, cognitions , and volitions, though it is not in and of itself either conscious or active. Cognitions, consciousness, and volition are all properties which inhere in the self.

The self, then, is the substrate of cognition. It should not be confused with another entity, the *manas*, which is often translated 'mind' (and which is, in fact, cognate with the English word 'mind'.) '*Manas*' will also be translated as the 'inner sense faculty', the English equivalent of one of its synonymns, '*antar-indriya*'. It is the sense faculty by means of which we become conscious of our cognitions. In the Nyāya system most

of the functions that an English speaker attributes to the mind – whatever this vague entity is – are taken over by the self, often accomplished by the self by means of the inner sense faculty. The self is the substance which serves as the substrate for the various mental states. And it alone is conscious. The major function left to the inner organ is that of overseeing which perceptions "get into" the self, which acts of remembering "awaken" in the self, and so forth. It is the allocater of attention.

The category of quality or property is large and diverse. It includes such classes of things as color, sound, smell, taste, and touch; weight, fluidity, viscosity, and velocity; number, size, separateness; conjunction and disjunction; cognition, pleasure and pain, desire and aversion, and volition or effort. It thus includes within itself what we might characterize as comparative properties, dispositional properties, and some relations.

The Naiyāyika has split the world into universals, or abstract generic-properties, and their instantiations, (concrete) particulars--leaving out for the moment (ultimate) distinguishing-properties, inherence, and absence. We have, then, many (groups of) particulars: the various cows, patches of blue, and episodes of flying in the world and the single abstract generic-properties corresponding to each group: cowhood, blueness, and flight. Thus, substances, qualities, and movements are all particulars in the Nyāya system and they in turn each possess, or are inhered in by, the appropriate generic-properties which "provide" them with the characteristics which group them into their respective classes.[19] And within this ontological system the Naiyāyika, with his preference for a substance ontology, makes the particulars of the substance class the substrates for the particulars of the property and movement classes.

Qualities, then, are particulars.[20] In the Nyāya ontological classification a quality is not a single entity shared by several objects nor an abstract or general quality instantiated numerous times. It is, rather, a particular instance of a quality (or relation) existing in a particular object at a particular time. It is a patch of blue on a wall. It is the contact of a book with a table. And following from this, this patch of blue, although

of the same shade, is different from that patch; and the contact of this book and table, although of the same variety, is different from the contact of that book and table. And so cognitions, being properties, are also particulars.

The major source for the problem of translating '*guṇa*' into English and in comparing it to Western notions lies in the fact that English language usage and the Western philosophical tradition, as well as that of much of India, does not generally divide up the world in the same way as the Nyāya system. They place the fundamental division, unlike the Nyāya system, between particular objects and the universals which they instantiate. The "total" object is the particular, not each aspect of it; the universals are those characteristics which various particulars share. We have two approaches to the same basic issues. We are left, then, with trying to express one approach in the vocabulary of the other.

Fortunately the translation of '*jñāna*', one of these properties, need not be so problematic. Several translations have been proposed and used; 'belief', 'knowledge', 'judgement', and 'cognition' being the most common. Belief is unacceptable for many of the reasons already discussed. 'Knowledge', although cognate with '*jñāna*', will not suffice as its translation. It is true that in ordinary usage '*jñāna*' is sometimes used with a meaning close to knowledge, but its meaning as a philosophical technical term is much broader. Knowledge is generally accepted to be by its very nature definite and true. The class of *jñāna*s, however, includes those which are either indefinite or uncertain, doubts (*saṁśaya*), or outright false, errors or illusions (*viparyaya*). If 'knowledge' is used, we end up with undesirable expressions such as 'false knowledge' or 'uncertain knowledge'. Besides, 'knowledge' (and 'knowing') are best reserved for the translation of a Sanskrit term for which it is truly appropriate. 'Judgement' is almost as unsuitable. Again, one large and important subclass of *jñāna*s is that of doubt, or indefinite cognition (*saṁśaya*). These are precisely those in which a judgement or determination has not been made. 'Awareness' is in many ways the most attractive candidate, as we have seen. But

it is better left for use as a gloss for '*jñāna*' within the Nyāya system, since *jñāna* is not considered to be equivalent to awareness in all of the other major schools. 'Cognition,' although not perfect, seems to be the most suitable translation. In its current usage, philosophical and psychological, it fits most if not all of the sorts of '*jñāna*' which the Naiyāyika accepts. And it can be used with appropriate qualifications to translate '*jñāna*' as found in all the major schools. In addition, being both a count noun and a resultative noun, it reflects the particularity of a *jñāna* quite well. For example, we can say "he had a cognition" or "your cognitions of these pictures are very different from mine."

Since a cognition is a particular, it is non-repeatable. That is, it may persist, but it can have no second occurrence or instantiation. This means that each cognition is unique. And since a cognition can belong to only one self, cannot be shared, and is accessible only to ones own consciousness (*anuvyavasāya*) it would seem to be private, too. Therefore, the bearer of truth-value is the unique and particular cognition of each individual person rather than a belief or proposition which can be shared.[21] This may avoid some of the problems pertaining to beliefs, propositions, etc., but perhaps at the expense of being vulnerable to some form of private language argument. We shall return to this later.

While a cognition of something as one sees it is not accessible to others, the individual components of the contents of that cognition, as far as the Naiyāyikas are concerned, refer to real, external entities to which others also have cognitive access. This is important to their theories of existence and language as well as knowledge, and we shall return to this when we discuss Vācaspati Miśra's realism and the problem of perception later on.

Now will be a good time to briefly digress in order to discuss two other alternate characterizations of cognition which, while they do not fit so simply into the Nyāya category system, might still be possible. Their discussion is also worthwhile for what it

will tell us about the Nyāya conception of cognition. Both of these characterizations will require at least a cursory look at the Nyāya explanation of change.

The existence of change and continuity in the world, like that of unity and diversity, is a phenomenon which must be explained within each ontological system. Because the Naiyāyika wants to uphold the existence of continuously existing physical objects, it favors an explanation which gives continuity or continuous identity prominence. This meshes well with a substance ontology.

In brief, the Naiyāyika took the phenomena of change and continuity of an object, split them up and attributed them to separate aspects, or components, of the same object. The substance component of an object – even though itself composite – is stable, enduring for the lifetime of the object. If it is altered through a change of composition or rearrangement of its parts, then it is no longer the same substance; it loses its identity.[22] The quality and movement aspects, the attributes, of the object are transitory, changing from time to time depending on many different factors.[23] Some which appear intrinsic to the object last almost as long as the compound substance, while others last but an instant. The particular substance, which serves as the substrate for qualities and movements, accounts for the continuity and identity of the object by persisting unchanged; the particular qualities and movements, which inhere in that substance, account for the changes found in the object by their constant succession. Thus, we have an object which is essentially one and the same object from day to day and minute to minute, and yet also manifests different attributes. With this explanation of change and continuity in mind, we shall turn to two other ways of characterizing cognition, the Naiyāyika's rejection of which is clarified by an understanding of this explanation.

Given the Nyāya ontology (including its theory of change), we can see that a cognition cannot be a modification of its underlying substance, if by modification we mean a rearrangement of the units – atoms and parts – of that substance, since that or

any substance cannot undergo alteration without a consequent loss of identity and continuity. In addition, since in this case the substance underlying cognition is the self (*ātman*) and the self is an eternal and unchanging primitive and not a composite substance, it cannot be rearranged in any way.

A cognition cannot be a process or alteration, if by this we mean the change or transformation of a single quality, since, as we have just seen, properties are invariable in addition to being undifferentiated, or partless, as we will shortly see. Qualities account for the change of an object by replacing one another, not by undergoing change themselves.[24]

It might be considered a process, however, if by this we mean a continuum or sequence of qualities, each replacing the previous one. In this case, either the cognition (as awareness) would remain constant while the (cognitive) object, i.e., its qualities, change or else the cognition would itself consist of a series of "mini- cognitions." The latter would essentially be the view of the Naiyāyika. He would, however, prefer to call the individual members 'cognitions' and the sequence 'a continuous series (of cognitions).'[25]

The Naiyāyika holds that a cognition is momentary rather than lasting for an indefinite time. This was determined early on by Vātsyāyana when he reasoned that since the flight of an arrow is a series of movements and each of the movements is momentary, a cognition which had as its cognitive object that arrow in flight would thereby also be momentary. Thus, the cognitions of a person watching the flight of that arrow would constitute an uninterrupted series. They would appear as a single continuous cognition, much as separate and static photographs on a strip of film appear as a single continuous image when projected in rapid succession.[26]

Now that we have seen that a cognition is a quality of the self, we shall look at qualities in general.

Quality-particulars are undifferentiated or partless. They are unchanging as well. The designs or patterns of color on a painted pot, for example, are not to be found in a single quality-particular which is made up of various color quality-particulars, but are the result of several distinct color quality-particulars present simultaneously in different painted areas (or parts) of the pot.[27]

In a similar way, the changes of color that a pot goes through when it is fired are not changes in or of the quality-particulars, but are due to the gradual replacement of quality-particulars of one color by those of another. Thus, patterns of quality-particulars are merely the quality-particulars of the parts of a configuration, while changes are merely the sequence of quality-particulars.[28]

However, unlike a pot the parts of which possess different color quality-particulars, the self, which is the substrate of cognitions, is partless and unable to possess more than one cognition at a time.

On the one hand, the self is itself considered to be without parts. Otherwise, it would be a product and hence not eternal. On the other hand, several different properties of the same subclass of qualities being incompatible with each other cannot inhere in the same substance – either as a whole or a part – at the same time.[29] A pot, for example, cannot be both heavy and light. Likewise, the self cannot simultaneously possess more that one cognition. It is up to the inner faculty (*manas*) to determine which cognition is to be presented to the self at any one time by making contact with the appropriate sense. The new cognition then replaces the previous cognition, by destroying it. In this way the inner faculty carries out its function of controlling our attention.

Like a patch of color, a cognition, being a quality- particular, is partless and unchanging. And since a cognition has no parts, it can have no form of its own.[30] The form of the object which we see, then, cannot belong to, or be part of, the cognition. It

must belong to the object itself. Thus, we cognize the object directly. And this is what the realist is after.

So while a cognition is itself without parts and without its own ontological form, it does have a content (*viṣaya*), a cognitive object, which does have a form of its own.[31] Thus, a cognition is intentional, in the sense that it refers to or is directed towards something distinct from itself, the object.[32] A cognition does not refer in the sense that the cognition or part of the cognition stands for or represents the object.

And as we saw earlier only cognition among the mental qualities refers beyond itself. It is thus intentionality which distinguishes cognition from the other qualities of the self such as pain and happiness, desire and aversion, volition, etc., though it is admitted that these other properties may refer to objects indirectly, that is, through cognitions. And as we will see later, this is significant, especially regarding pain.

The object in a cognition is simply its contents. It is that which we think we see, infer, imagine, recall, etc. It can even turn out to be erroneous or illusory. In other words, it is that something of which we are aware. But, for the Naiyāyika, this object is neither a representation nor a sense datum, it is the external object itself. It is, however, the external object as it is cognized, not per se. It is thus an epistemological notion.

We have direct cognition of real objects (*vastu*) or their components as cognitive objects (*viṣaya*). These objects are real in the sense that they do exist in the world over and above this cognition. But they may still be erroneous in the sense that they do not fit the situation as it really is at the time. For example: the world is inhabited by bears and men. At some time I may think that I see a bear in the distance. In fact, what I see is not a bear, but a man. Thus, there is a distinction between real objects (existing through time) and the real world (as it is at any one time). Without this distinction, there would be no room in this theory for error in cognitions, something the existence

of which the Naiyāyika most definitely acknowledges. We shall examine this in detail when we look at the early Naiyāyika's analysis of the problem of perception.

So we have the *viṣaya*, the cognitive object or content of the cognition, and the *viṣayin* to which it belongs, the awareness of that content, the cognition itself. As we saw before, a cognition is a particular occurrent; and in a train of thought, one distinct cognition replaces another. Each one of these cognitions has its own cognitive object and is distinguished by it. How, then, is the Naiyāyika to account for the preservation (or identity) of reference between these cognitions, if there is one?

The Naiyāyika's answer here too is realistic. As we have seen, the content of our cognition is the actual object. It is not an isolated appearance of the object – as a phenomenalist would have it – nor merely a portion of it, the frontal surface – as a naive realist might have it – which serves as the content, but the actual object itself, an entity over and above its parts or stages.[33]

The Naiyāyika holds that there exist wholes, entities which are produced from, but are not equal to, their parts. And they are perceptible. The object, then, is cognized as it exists, as a whole.[34] Though it may appear differently in different cognitions, with different sets of attributes, it is recognized as one and the same object in each.[35]

In a sense, an epistemological problem has become closely intertwined with an ontological problem merging into one. The problem of the existence of a whole as an independent and continuously persisting entity and the problem of the cognition of one and the same entity from cognition to cognition are interdependent. In different cognitions, the one and the same object is seen – what it is which makes it the same object is an ontological problem; and at different times, a single object is cognized as the same – why it is that we cognize it as the same object is an epistemological problem.

While a cognition is itself undifferentiated or formless, its object is not. It has an ontological form, or structure, of its own. This structure is accessible through an

introspective, or reflective, cognition, and therein amenable to complete analysis in terms of the Nyāya categories. This can then be put into words, and discussed and debated. The Naiyāyika, from early on, has held not only that anything which exists can be cognized, but also that anything which can be cognized can be expressed.

Not all the properties of the self are cognitions. In addition to those which we might call cognitive, there is another group of conative or affective properties. This includes pleasure or ease, pain or discomfort, desire, aversion, and volition or effort. These are all differentiated from cognition precisely because they do not have an object, that is, they are devoid of cognitive content.[36]

To account for the obvious fact that we do seem to take pleasure in things, desire things, and will or effect things, most Naiyāyikas concede that this class of mental properties may partake of objects indirectly. A pain, for example, arises along with the perception of an object, mostly - not totally - from the same causes. These mental properties, like cognitions, are classified ontologically as quality-particulars, thought they are ordinarily expressed by verbs.

An adequate account of pain is important for Nyāya epistemology. The analysis of pain is said by some - in both the Western and Indian traditions - to shed light on at least one type of cognition, perception. If this is so, it will have implications for both the Nyāya theory of perception and theory of knowing. If pain and perception are similar to each other in essential ways, are of the same basic kind, then what we know about pain should tell us something about perception.

We ordinarily think of pain as immediate, that is, as something before us which we cannot overlook and about which we cannot be mistaken. Now if perceptions are similar to pain, especially in their being immediate, then several common assumptions we have about them are questionable. Two stand out. There may be no external independently existing physical objects and there may be no perceptions which are really erroneous.

The basic argument starts with the premise that pains and perceptions belong to the same class of mental properties and thus possess the same essential or defining characteristics. If it can be shown that one has a certain essential characteristic, then it should be possible to argue that the other one does too. This can, of course, work either way.

The advocates of this position, both Indian and Western, begin with some ordinary beliefs about pain.[37] There is a certain immediacy about pain. It seems that pain is something about which we just cannot be mistaken. When we are in pain, we don't ordinarily question whether or not what we feel is truly a pain. Nor do we look back to a prior painful experience and think that maybe we really weren't in pain then after all. (We may, of course, wonder about the actual cause of the pain, but this is different.) And it also seems that pain is something which cannot be overlooked. When we are not in pain, we just assume that there aren't any pains which we have overlooked. Nor do we wonder, when we are no longer in pain, where the earlier pain has gone. In the terms by which the objects of perceptions are described, pains are never unperceived or unfelt and they are never false or erroneous – there are no pains which exist unperceived and there are no pains which are or turn out to be false.

It is then but a small step to the claim that the objects of perceptions also never go unperceived – that they do not exist independently of being perceived; and that they too are never inherently false or erroneous – that there is no room for erroneous perception, at least initially.

This is all clearly unacceptable to a realist such as the Naiyāyika. Accordingly, he is compelled to block or counter such an argument. He could, of course, accept the starting premise that pains and perceptions are of the same class, but then argue in the other direction: like cognitive objects, pains can exist unfelt and they can be false. But this means going against common intuitions which he himself would be hesitant to give up. Thus the alternative is for him to argue that pains and perceptions belong to

different classes and thus the argument can't even get off the ground. But he must then also account for the similarities between these two classes. And this is in fact what he does.

The Naiyāyika puts perceptions into one class, cognitions, segregated from pains and all the other mental qualities, precisely because they have objects (towards which they are directed) and puts pains and the other mental qualities into other separate classes. The Naiyāyika thus divides mental qualities into two large subclasses: cognitive qualities, which have objects, and conative and affective qualities, which do not. The word 'pain' then refers not to an object, but to a mental state or property – a quality-particular – one which we either have or which we do not have. As a consequence, there are no independent pain entities which can exist unsensed.[38]

The Naiyāyika position with respect to pain reflects the point, which many contemporary philosophers have made as well as the Naiyāyika's major opponent, the Buddhists, that it is a mistake to apply act-object terminology to sense-experiences. But, of course, the Naiyāyika do not feel that this applies to cognitions. The locutions, for example, "to have a pain" or "to be in pain" or even "to painfully feel" are accordingly preferable to "to feel a pain," if the structure of the sentence is intended to reflect the structure of the pain experience.

In addition, the Naiyāyika account of pain also explains the important similarity which pain has with perception – its immediacy. We are reflectively conscious of them both when our attention is turned toward them. We become conscious that we are in pain in the same way as we become conscious that we are perceiving an object, by means of a mental perception (*mānasa-pratyakṣa = anuvyavasāya*). That is, we become conscious of a pain by perceiving it just as we become conscious of a perception by perceiving it.

The Naiyāyika might say, perhaps, that the intuition that we cannot be mistaken that we have a pain can be extended to cognitions, if by that we simply mean that,

regardless of the reality of the cognitive object, we cannot be mistaken that we have a certain cognition when we are conscious of that cognition.[39] To have a cognition is not the same as the cognition's being true. For example: I know that, at the time, I saw a bear (and ran away from it), even though it turned out not to be a bear.

The case of pain differs in one important respect from that of perception, or in fact any cognition. When we are in pain, when a pain has arisen in the self, we are always conscious of it. Pain, by its very nature, necessarily impinges upon our consciousness. Cognition, on the other hand, is not something of which we are always conscious. Often we see things (and even respond) without ever being conscious of the fact that we do. This last characteristic of pain accounts for the intuition we have that we cannot overlook a pain. If we are in pain, we know it.

Thus, the Naiyāyika has accounted for our everyday beliefs and has made a necessary distinction, and thereby blunts the arguments of those who would assimilate perceptions to pains.

Before we finish this brief introduction to cognition, we should say something about the origination of cognitions. Unlike most contemporary Western philosophers, the Naiyāyika does not see epistemology in purely phenomenological or logicistic (non-psychologistic) terms. There is no sharp distinction of it from the empirical sciences of psychology or even physiology. The Nyāya epistemology, however, did become as time went along more phenomenological, as did its logic become more formal. In this, Vācaspati Miśra was a transitional figure who introduced several phenomenological concepts while retaining most of the earlier framework.

Within this predominantly empirical perspective, the Naiyāyika analyzes cognition (from our perspective) in physical, physiological, psychological, as well as phenomenological terms. The causal laws which govern each one of these areas are seen as essentially the same. And the Naiyāyika's analysis of these causes is positivistic.[40]

Because the Naiyāyika maintains a single uniform theory of causation, and because his ontology does not dichotomize the world into physical and mental substances, he avoids much of one of the persistent problems in the West: the mind-body problem. Thus, no problem is seen to exist in the interaction of the various heterogeneous elements in a causal chain leading up to a cognition. There are not two parallel realms, one mental and governed by principles of thought and one physical and governed by laws of physical causation.[41] The problems surrounding the distinction between appearance and reality and private and public cognitive access still remain.

The early Naiyāyika, for the most part, doesn't extensively discuss the origination of cognitions in general, though much can be gleaned from various discussions on related topics. He is far more interested in the origins of particular kinds of cognitions – sound cognitions and unsound cognitions, as well as indefinite cognitions, ratiocination, recollections, etc., though to a much lesser degree. His primary purpose is, of course, to discover the conditions which must be met to bring about knowledge and avoid error, and then from this substantiate his whole system.

In order for us to more thoroughly understand the Nyāya theory of the origination of instances of knowing, or knowledge, and its place within a more inclusive general theory of knowing, it will be useful to mention a few concepts and distinctions which are important in recent Western epistemology and which ought to be considered in any contemporary analysis and comparison of Nyāya epistemology. Foremost among these are the concepts of justification and truth.

The Western notion of epistemic justification has no single equivalent in Nyāya epistemology. But there is a significant, yet infrequently used, distinction in Western epistemology which is relevant to the Nyāya theory: the distinction between the nature, or form, of justification and the criteria of, or tests for, justification. Let us, for the moment, leave aside all the controversies regarding the exact definition of justification itself and just take a look at the distinction in question. The nature of justification is

simply that evidence which constitutes a proper justification; while the criteria is the means by which we tell whether something is a proper justification. The same sort of distinction is made regarding truth, and is much more common.

In Western epistemology, the nature and criteria of justification are generally treated together. The nature and criteria of truth, on the other hand, are usually treated separately, their distinction being more widespread, or else there is a conscious effort, at least, to show why they should not even be distinguished. There is a third possible aspect or component, the causes or conditions of justification and of truth, which is seldom discussed at all, at least in philosophy.

In the Nyāya theory of knowing, however, these first two aspects of justification are distributed over two entirely separate areas of inquiry. The nature of justification – which is, in a sense, conditional – is lumped together with the causes of true cognitions and roughly corresponds to the origination of knowledge (*prāmāṇya-utpatti*) of the Naiyāyika; the criteria of justification, on the other hand, has some similarities to the ascertainment of knowledge (*prāmāṇya-jñapti*).[42] The two aspects of truth are likewise distributed. The nature of truth roughly corresponds to the definition of knowledge (*prāmāṇya-lakṣaṇa*) while the criteria of truth also corresponds partially to the ascertainment of knowledge (*prāmāṇya-jñapti*).

Now we will take a look at these same issues from the Nyāya perspective. First, we will take a brief look at the way it breaks down the issues involved in its theory of knowledge (*prāmāṇya*). The division we will use was not explicitly discussed in the *NVTT* as it was in other earlier writings[43], but it does occur with varying degrees of clarity throughout the *NVTT*.

The Naiyāyika divides his analysis of knowledge into three separate domains: the definition, or nature, of knowledge (*prāmāṇya-lakṣaṇa*); the origination, or conditions of, knowledge (*prāmāṇyotpatti*); and the ascertainment of knowledge (*prāmāṇya-jñapti*).[44]

The definition of knowledge concerns the characteristics which a cognition must have in order to be an instance of knowing (*pramā*). Since for the Naiyāyika justification is, as we have seen, relegated to the other two domains this domain is primarily concerned with the characteristics of truth.[45] Whether or not the truth of a cognition can be completely divorced from its conditions (and hence justification), however, is an issue of fundamental importance and will be examined in chapters five and nine.

The origination of knowledge is concerned with the causes or conditions for knowledge, the presence of which are necessary for (an instance of) knowing to arise. These are, as we have seen, empirical conditions. This domain is the most complex and perhaps the most confusing from the Western epistemologist's standpoint, for it includes – and makes no hard and fast distinction between – what he would classify as the nature of epistemic justification and empirical causation of true cognitions.

The ascertainment of knowledge concerns the means to determine whether or not a certain cognition should be considered (an instance of) knowing (*pramā*). Though it is not equivalent to either, it is in many respects similar to both the criteria, or test, of truth and of justification. Consequently, it shares many of the same problems.

Comparisons have been often made between Western and Indian theories of truth. Occasionally, comparisons have been made between their theories of the criteria of justification. Most, unfortunately, have been merely suggestive, owing to the lack of close or total correspondences. Without these, a more complex and difficult mapping between the concepts of each system is required. This was seldom done earlier, but recently has begun to be done more often. In addition, at the present time several Western philosophers have put forth a variety of causal theories of justification. While these theories still embody many of the aforesaid assumptions that are at odds with those in the Nyāya theory, they nevertheless do capture much of what is significant in the Nyāya theory of the origination of knowledge. Needless to say, these will offer us interesting comparisons.

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[1] Sections of three books have been useful in the writing of this chapter: J. N. Mohanty, *Gaṅgeṣa's Theory of Truth*, introduction, section three, Bimal K. Matilal, *The Navya-nyāya Theory of Negation*, chapter two, and Karl H. Potter, *Indian Metaphysics and Epistemology*, chapters six and eight.

[2] I have chosen to translate '*pratyakṣa*' as it is used throughout Indian philosophy, rather than as it is used by any one author or system. The corresponding term found throughout Western philosophical literature is 'perception'. It is the traditional Western term for the experience born of the senses. Sensory perception, sensation, etc. are also occasionally used in a narrower sense by particular authors, but the pertinent problems and assumptions are generally discussed in terms of perception. Narrow characterizations of '*pratyakṣa*' found within particular Indian epistemological systems, such as that created by Diṅnāga, might be more accurately reflected by such terms as 'sensation' or 'sensory experience', but the relationship to the counterparts – also called '*pratyakṣa*' – of other schools would thereby be lost. Cf. Douglas D. Daye, "Epistemologically Misleading Expressions: 'Inference', and 'Anumāna', 'Perception' and 'Pratyakṣa'.

[3] '*jñāna*', '*buddhi*', and '*upalabdhi*' are synonymous for the Naiyāyika. See *NS* I.1.15.

[4] See *NBh* 1.1.15. "buddheḥ svābhāvikaṁ caitanyam āstheyam."

[5] See *NVTT*, p. 123.21. "tasmād artha-pravaṇebhyo jñānebhyas ...". See also *NVTT*, p. 21.14-15. "tasmād artha-pradarśana-mātra-vyāpāram eva jñānaṁ pravartakaṁ prāpakaṁ ca." Cf. *TBh* II.16. "artha-prakāśo buddhiḥ."

See also Udayana's *Kusumāñjali* 4.4. "arthenaiva viśeṣo hi nirākāratayā dhiyām."

[6] See Bimal K. Matilal, "Indian Theories of Knowledge and Truth," p. 332.

[7] See Jon Barwise and John Etchemendy, *The Liar: An essay on Truth and Circularity*, for a discussion this paradox and others and an assessment of their importance in Western philosophy.

[8] Cf. "dṛṣṭaś ca samādhinā 'rthaviśeṣaprābalyābhibhavaḥ nāham etad aśrauṣaṁ, nāham etad ajñāsiṣam, anyatra me mano 'bhūd ity āha laukika iti" *NBh* IV.2.42.

[9] See *NBh* 2.1.19.

[10] See above.

[11] See, for example, W. V. Quine, *Quiddities*, p. 18, and Anthony Quinton, *The Nature of Things*, p. 132 and 357.

[12] Cf. Karl H. Potter, "Does Indian Epistemology Concern Justified True Belief?" p. 310.

[13] See *NBh* 1.1.9.

[14] *NS* 3.2.56-59.

[15] See *NBh* I.1.16.

[16] Jayanta Bhaṭṭa rejects this position, in his *Nyāya-Mañjari*, p. 16.

[17] For example, see "na hi kriyāsvabhāvam jñānam api tu phalasvabhāvam eva," *Nyāya-Mañjari*, p. 16.24.

[18] "pariśeṣād yathoktahetūpapatteś ca" *NS* III.2.39 and *NBh* thereon.

Bhāsarvajña incorporates classifies movements as qualities. See Potter, *Indian Metaphysics and Epistemology*, p. 131.

[19] As opposed to universals, substances, qualities, and movements are not repeatable entities. They are continuants. Many of them are multitudinous and many, transient.

[20] See Potter, p. 112.

[21] While the content of a perception is a portion of the external world - which is accessible to others - it is a particular portion, a view, of that world.

[22] See Bhaduri, pp. 89ff. and Potter, pp. 84-6.

[23] See *NBh* III.2.24.

[24] *NS* and *NBh* III.2.23-24.

[25] *NS* and *NBh* III.2.42-42.

[26] *NS* and *NBh* III.2.45.

[27] According to many Naiyāyika the color of the whole, the complex substance-particular, is distinct from the colors of the substance-particular parts. It is a quality-particular called 'variegated' (*citra*). The color of the whole and those of its parts are present and are distinctly perceptible in both cases. See *NV* IV.1.12 and *NVTT* thereon.

[28] This is one place where the Naiyāyika's theory differs from that of the Vaiśeṣika's. The Vaiśeṣika holds that the atoms which make up the pot must first be decomposed and then reconstituted in order for the qualities to change.

[29] See *NBh* 3.2.23.

[30] See Mohanty J. N., *Gaṅgeśa's Theory of Truth*, p. 26.

[31] See Udayana's *Kusumāñjali* 4.4. "arthenaiva viśeṣo hi nirākāratayā dhiyām."

[32] See *NVTT*, p. 123.21-24 "tasmād **artha-pravaṇebhyo jñānebhyas** tadapravaṇatayā bhinnajātīya sukhādayo yathāsvamanukūlavedanīyatvādibhir lakṣaṇair anyonyam api bhedavantastīvrasaṁvegitayā pramitsānapekṣa- mānasapratyakṣavedanīyā iti ramaṇīyam."

[33] Strictly speaking it is a compound substance-particular substrate which as a whole exists over and above its parts and is so perceived. It possesses its own attributes, which are distinct from those of its parts.

[34] See *NS* and *NBh* II.1.33-34.

[35] See *NBh* III.1.1 *passim*. We will return to this in chapter five.

[36] See *NVTT*, p. 123.21-24 "tasmād artha-pravaṇebhyo jñānebhyas **tadapravaṇatayā bhinnajātīya sukhādayo** yathāsvamanukūlavedanīyatvādibhir lakṣaṇair anyonyam api bhedavantastīvrasaṁvegitayā pramitsānapekṣa- mānasapratyakṣavedanīyā iti ramaṇīyam."

[37] See, for example, Sidney Shoemaker, *Self-Knowledge and Self-Identity*, pp. 215-216, and Norman Malcolm, "The Privacy of Experience," p. 106-115.

For a Buddhist position as seen by a Naiyāyika see *NV* IV.33; and see *NVTT*, p. 123.8 "sukhādīnāṁ vijñānābhinnahetujatvena vijñānatvād aśakyaṁ vyāvartanam iti ced / na, abhinnahetujatvāsiddeḥ"

[38] "sukhaduḥkhe grāhye grahaṇaṁ jñānam iti" *NV* IV.2.33.

[39] Vācaspati Miśra claims that our consciousness of perceptions and of pains and pleasures is necessarily veridical. See *NVTT*, p. 13.6-11.

[40] See Kalidas Bhattarcharyya, "The Concept of Cause as in India and the West," and Bhaduri, chapter XII, for an examination of the Nyāya theory of causation.

[41] Qualities in general and cognitions in particular cannot be shared. "yadi guṇaḥ sa na sādhāraṇaḥ" *NV* I.1.23.

[42] A more recent and perhaps useful distinction is between internal and external theories of justification. According to this distinction the origination of knowledge is an external theory of justification and the ascertainment of knowledge is an internal theory. This will be explored in chapters eight and nine.

[43] See *Nyāya-mañjarī*, p. 146-160.

[44] See Mohanty, pp. 1-24, for a discussion of these three concepts.

[45] Though other Indian schools, such as the Prabhākara Mīmāṁsakas, do define knowing in terms of its origin, the Naiyāyika does not. In fact the conditions for the origination of knowing are defined in terms of knowing.

3
The Earlier Nyāya Theory of Perception

The Nyāya theory of perception is a causal theory of perceptual knowing. The Naiyāyika does not recognize two distinct theories of perception as is usually done in the West: one pertaining to the metaphysical nature of perception and another pertaining to perception as a source of or form of knowing. The Naiyāyika analyzes the nature of perception within the context of a causal theory of knowing. Various aspects of and special problems pertaining to perception are framed and explored within this framework. And as we shall see, this metaphysical framework affected the direction and outcome of the Nyāya inquiry and analysis. Thus in order to understand perception we must first look at the Nyāya theory of knowing.

The Nyāya definition is usually a variety of the *genus et differentia* kind of definition; it is not a real, essence, or conditional definition.[1] According to Vātsyāyana, the defining characteristic (stated in a definition) is a property which distinguishes the entity in question from those entities which do not have its nature.[2] Thus the purpose of the Nyāya definition of perception is to single out a specific entity, perception, and rule out all other possible competitors. Uddyotakara comments that the function of the definition of veridical perception in the *Nyāya Sūtras* is to distinguish veridical perception from the sets of similar and dissimilar entities, from (according to Vācaspati Miśra[3]) the other kinds of knowing and from erroneous perception (veridical-perception-like cognitions) or from (according to Jayanta Bhaṭṭa[4]) the other kinds of knowing and from the object of knowing.[5] The definition of perception in the Nyāya Sūtras is somewhat

unique in that the general definition of knowing of which veridical perception is one kind is missing,[6] thus the definition itself must accomplish both functions of a *genus et differentia* kind of definition. In this case the two functions - that of delineating the genus and that of differentiating the species - are not separated. Its purpose then is merely to distinguish veridical perception from all other entities. This definition is incomplete in that it does not exhaustively enumerate all of the essential and relevant characteristics of veridical perception. As a consequence, we will have to fill in characteristics, or conditions, to complete the full Nyāya account of perception.

But perhaps even more importantly, the use of this kind of definition also subtly affected the growth and ultimate content of the Nyāya theory. A great many arguments centered around particular terms of the definition. And a major motivation was to defend and justify the particular definition, incomplete according to our objectives, rather than delineate a thorough and accurate analysis and of the essence of perception.

The Nyāya Theory of Perception as a Theory of Knowing

Neither a definition of knowing (*pramā*) nor one of source of knowing (*pramā-kāraṇa*) is explicitly given in the Nyāya Sūtras. There is found instead an enumeration of the four possible kinds of knowing. Each of these are in turn given their own particular definition. An instance of knowing then would be something which satisfies any one of the four particular definitions.

The need for an explicit and general definition of knowing and of the source of knowing was not left wanting for long. The earliest surviving commentary, the *Nyāya-sūtra-bhāṣya*, supplied a definition-related statement of *pramāṇa* in the introduction. It has been suggested that this statement might in fact even be an old addendum (*vārttika*) to the sutras or, less likely, an original sutra which was later incorporated into the text of the *bhāṣya*.[7] The statement says simply: when there is an understanding of the object from a *pramāṇa*, the *pramāṇa* is successful because of the success of the percipient's

exertion.[8] The same commentator then goes on to gloss *pramāṇa* as that by means of which one knows (*praminoti*) the object and *pramiti* as the (resulting) cognition of the object.[9] Uddyotakara then glosses *pramāṇa* as the reason (cause or ground) of cognition (*upalabdhi-hetu*).[10] Vācaspati Miśra clarifies this by stating that Uddyotakara did not mean any cognition, for then error and doubt would be included in the definition, but that he assumed the specification that the cognition be in accord with the object (*arthavat*), that is, veridical.[11] And he later glosses *pramā* (=*pramiti*) as faithful (*avyabhicārin*) to the object, veridical.[12] And Vācaspati Miśra in the course of explaining the inclusion of the word 'veridical' (*avyabhicārin*) in the definition of sound perception states that general definition of knowing itself includes the word 'veridical'.[13]

The definition of knowing, then, is that knowing is a veridical (*avyabhicārin*) cognition. But a more exhaustive definition is implicit in the writings (including the *sūtras* themselves), its parts being explicitly found scattered throughout, and later becomes the standard definition (with slight variants).[14] According to this definition, knowing is a veridical (*avyabhicārin*) definite (*niścaya*) cognition (*jñāna*) which is a presentative experience (*anubhava*).

Knowing is a cognition, the only variety of mental state which is intentional, and thus excludes pains, wants, etc. It is definite in that its object is not only not equivocal, but is determined.[15] It is a presentative experience rather than an instance of remembering, the cognition of something previously experienced.[16] And it is veridical unlike dreams, illusions, and hallucinations. According to what we discussed earlier, this would approximate a true (occurrent) belief other than remembering.[17]

While the Nyāya Sūtras gave no explicit definition of knowing, it is interesting to note that it did give a definition of veridical perception (*pratyakṣa*) which happens to incorporate most of the same conditions which belong to the implicit definition of knowing which we have been discussing. The later commentators had to explain why these conditions are given specifically for perception alone. For either these conditions

should be given in all four definitions of the four forms of knowing, since they apply to all four; or else they need not be given in any of the four definitions, since they already apply, being given by the general definition of knowing.[18]

As we will see, the definition of (sound) perception (*pratyakṣa*) in the Nyāya Sūtras is: (sound) perception is a veridical definite cognition whose object is undesignatable and which is produced by a sense-object connection.[19] The last property, particular to perception, is sufficient to distinguish perception from the other forms of knowing.[20] The next to last property is problematic. Ignoring for the time being the fact that it was later reinterpreted in order to subdivide perception into stages, its earlier explanation was not completely clear. Vātsyāyana explained that there is a distinction between one's perception of something and ones subsequent (internal or external) verbalization of this perception.[21] This verbalization takes the form of a cognition which accompanies or follows the perception. In this verbalizing cognition a sentence is associated to the content of the perceptual cognition. Thus verbalization is not a necessary element of perception, but rather is an optional supplement. It is not a necessary element of inferential and analogical cognition either. One might reason without also verbalizing the process or results. But is it conceivable that even verbal comprehension or cognition (*śābda-bodha*) is itself not verbalized? If this last property were held by some to apply to all forms of knowing, arguments to this effect (and their refutation) should be found in some other texts, but they are not.[22]

The other three conditions – that it be a cognition which is veridical and definite – belong to all forms of knowing. In fact, they almost match the definition of knowing which we have seen was given an explicit formulation later on. Thus, the objects excluded by these last three properties in the definition of perception are in fact the same as those which would be excluded by the implicit definition of knowing. The word 'cognition' (the most general characteristic) excludes all other mental qualities or states such as pleasure, pain, wanting, aversion, etc. as well as all non-mental entities.

The word 'definite' excludes those cognitions which are indefinite or noncommittal. And the word 'veridical' or 'faithful (to the object)' excludes erroneous cognitions such as illusions, hallucinations, and dreams. According to the early commentators these three properties exclude entities which are not instances of knowing – as they would if they were conditions of knowing. Certainly, these three conditions do not distinguish veridical perception from the other forms of knowing. That is the function of the condition that it arise from a sense-object connection which is particular to perception.[23]

All that is left to be excluded from the forms of knowing are instances of remembering (*smṛti*). But these may not have even been originally excluded. For some members of the sister school of the Nyāya, the Vaiśeṣika school, remembering is a form of knowing. And even Vācaspati Miśra opposes its inclusion mainly on custom.[24]

Thus we have a general definition of knowing. An instance of knowing, a sound cognition, is a veridical definite cognition which is presentational (= non-recollection).

A Brief Look at the Nyāya Theory of Truth

The standard Nyāya definition of veridicality (or truth) is found in the Nyāya-Bhāṣya.[25] It simply says that when something is the case, ones cognition that it is the case is a veridical cognition. Our cognition that the dog is on the rug is veridical when the dog is (actually) on the rug. It is a simple and common-sense definition.

Such definitions of truth are often called correspondence theories. But the early Nyāya theory of truth, strictly speaking, is not a correspondence theory, if we mean by 'correspondence theory' a theory which states that true propositions, veridical cognitions, and so forth possess some sort of common structure or property. In the Nyāya system this would be a universal. But the early Naiyāyika does not postulate a special universal veridicality (*avyabhicāritva*) which exists in its own right and whose presence makes a cognition veridical. Later Naiyāyikas, in their attempts to analyze

knowledgehood (*prāmāṇya*), which is virtually equated with truth, do recognize such a universal.[26] The early Nyāya theory of truth then is akin to what is called a "redundancy theory" or a "minimal theory of truth."[27] Each individual cognition is veridical because the individual object to which it refers exists as it is cognized.

The Nyāya theory is not a theory about linguistic entities (or dispositional beliefs) and the world. It is about individual cognitions (occurrent beliefs) and the world. These cognitions, however, are purported to be instances of direct awareness of the world; that is, their contents are not distinct from the world, but are merely certain views of the world. A veridical cognition is one in which the (external and real) components of the world, or physical object, are "ontologically arranged" as they actually are.

The Naiyāyika does not subject this definition to much further sophisticated analysis. To them it is pretty straightforward. If a cow is black and we see it as black, our perception is veridical. We can, however, unpack the Nyāya notion of truth a bit further if we make explict how the Naiyāyika would (and later does) analyse such a perception. Thus in the above case he would hold that if a (whole) substance-particular, a cow (which is inhered in by cowness), exists and is inhered in by a quality-particular, an instance of black (which in turn is inhered in by the universal blackness), and we see that cow as inhered in by the black quality-particular, then the perception is veridical.

An error, on the other hand, is when one cognizes something as the case when that something is not the case.[28] The classic example is of someone mistaking a piece of shell for a piece of silver and is explained as follows.

One's visual sense goes out and meets what is in fact a piece of shiny shell lying in the street while simultaneously – because of the apprehension of the universal shininess – a memory trace is activated the object of which is a (prior experience of a) piece of silver, rather than (one of) a piece of shell. These two causes, along with

others, produce a perception that the object lying in the street is a piece of silver. The percipient perceives a substance-particular (the shell, but bereft of the universal shellness) to be inhered in by the quality-particular, the shiny color, as well as by the universal, silverhood. He thus perceives the universal silverhood as inhering in the shell, but he does not so perceive the universal shellness.[29]

According to Vācaspati Miśra[30], error is a positive mistake, an error of commission not of omission.[31] Thus error is more than the mere juxtaposition of real components. The component of the cognitive object of perception, the universal being-silver, is not actually present, though as we saw earlier, it is nonetheless real. But the reason that the perception is erroneous is that this component is not a component of the actual composite physical object. That is, the reason that such a perception is erroneous is that the universal being-silver is positively *taken* to inhere in the substance-particular being perceived (and connected with the sense) when in fact it does not *actually* inhere in it.[32]

If the perception were veridical, if one took the shell to be a shell, then the percipient would take positively the universal shellness as inhering in the substance-particular shell, as it actually does. The reason that such a perception is veridical is not only that the attribute components which are perceived are the actual components of the physical object but also that they are taken to be so, that is, they are taken to inhere where they actually inhere! Thus the object as perceived is identical to the object as it exists, and as it is connected to the sense.

Truth, or veridicality, is not an all or nothing notion for the Naiyāyika. A cognition need not be entirely veridical or entirely erroneous. There is a continuum of cognitions from those which are completely veridical to those which are completely erroneous.[33] And remember that in every case, all of the components are considered individually to be reals.[34]

The cognitive object (*viṣaya*) of an erroneous perception can have both veridical and erroneous components: those which actually inhere in the physical object and those that don't. In the case of the erroneous perception of shell as silver, the perception of the substance-particular, the shell (which happens to be bereft of the universal shellness and any other universals particular to the piece of shell), the quality-particular, the color silver (bereft of any universals particular to the piece of shell), the universal silveriness, and such universals as existence and here-and-now-ness is veridical. It is the perception of the universal being-silver as inhering in the shell (and any related particularizing universals) which is erroneous.

In the case of a (completely) veridical perception, however, there are no erroneous components. All of the components are actual and actually inhere in the substance-particular.

And in the case of a dream or hallucination, the cognition is (completely) erroneous. (The components, though not present, are real - as they are in all cognitions.) Besides the obvious that none of the attributes actually inhere in the substrate seen, there is in fact no substrate present, (and even the universals of existence and here-and-there-ness are inappropriate). There is no referent at all for the cognition.[35]

The Nyāya Theory of Knowing as a Causal Theory

A source of knowing (*pramāna*) is defined as the reason or reasons (the condition or conditions) of an instance of knowing (*pramā-hetu*). Each instance of knowing is generated by a complex of reasons (or conditions). According to Jayanta Bhaṭṭa it is this whole complex (*sāmagrī*) which is considered the source of knowing.[36]

But the contribution of each of these conditions is not proportional. Out of these conditions, one is more efficacious, more central to the process of generating knowing, and it is what is usually called the source of knowing (par excellence).[37] The concept of

source of knowing, whether the whole complex or a specific condition, (being defined in terms of knowing, its result) is conceptually parasitic on that of knowing; and significantly not, as we will see later, vice versa.

A reason (*hetu*), or condition, can be either a cause or a ground, or some sort of combination of the two; since the Naiyāyika does not always or clearly distinguish between causes and (logical or evidential) grounds. As a consequence, the functions of justification and production of cognitions (or occurrent beliefs) overlap. Accordingly the Nyāya system of epistemology differs from that traditionally found in the West. Some recent Western theories, however, do come much closer to it.[38]

The complex of conditions (positive and negative) which generates a veridical cognition, or instance or knowing, is distinct from those which produce cognitions in general (veridical, erroneous, and otherwise).[39] Since the set of conditions which will generate veridical cognitions is distinct from those which will generate cognitions in general, there are other sets of conditions which will also generate cognitions, cognitions which are not veridical. Accordingly, for cognitions in general, there are several sets of conditions which will generate them. But out of these sets, there is a only a restricted set of conditions which if met will give rise to veridical cognitions.

When the requisite set of reasons, or conditions, is extant, there will then exist an instance of knowing, a veridical cognition. This instance of knowing is thus the result of certain (proper) conditions being satisfied. When these conditions are not completely satisfied, there will be no instance of knowing, though there may still arise a cognition, which is not veridical. In a sense the veridical cognition derives its veridicality from (having the right) conditions; the proper set of conditions then is responsible for the truth, or veridicality, of the resultant cognition. In the same way, according to the Naiyāyika, there is a restricted set of conditions which if met will give rise to erroneous cognitions (rather than veridical or indefinite cognitions).

Accordingly, when a cognition arises, if and only if those conditions which generated it are proper, are the complete set of truth-generating conditions, will it be veridical.[40]

There cannot be an instance of knowing, a veridical cognition, which is not generated by one of the four sources of knowing. For the Naiyāyika has defined the sources of or conditions for knowing in terms of knowing. Whatever is a cause, or causal complex, of knowing is a source of knowing. He then goes on to divide *exhaustively* all of these causes into exactly four kinds of sources. There are thus no other causal complexes, which include one of these sources, which can produce a veridical cognition. If the causal conditions under consideration do not include one of these sources they cannot lead to a veridical cognition. No cognition can be veridical if it is not properly caused, that is, by one of the four complexes. This means that one is precluded from merely thinking veridical thoughts which are not based on a source of knowledge. All roads to truth are reliable. And this, we will see, is problematic when considering a dice-player who guesses correctly.[41]

Thus the conditions for knowing is the complex of (causal and logical) conditions, both positive and negative, which is necessary and sufficient for the generation of knowing. More precisely, each condition of the complex is necessary, while the complex alone is sufficient. Thus if any condition is deficient, there can be no knowing. If they are all present, there cannot but be an instance of knowing. (And if there is an instance of knowing, all must be present. If there is no instance of knowing, a proper condition must be absent.)

Although the major necessary conditions are identified by the Naiyāyika, he does not claim to have an exhaustive list.[42] Some conditions remain unspecified, though the Naiyāyika would not claim that they are undiscoverable in principle. The fact that they are not wholly enumerated, however, does not vitiate the claim that there are necessary conditions.

The fact that every condition neceesary for the production of a veridical cognition cannot be specified, however, will have no effect on a theory that there is a specific practical method for ascertaining the veridicality of a cognition, as long as one keeps separate the theory concerning the origination of knowing and the theory concerning the test of knowing, and the Naiyāyika for the most part does.[43]

There are four different kinds of complexes, four different sources, or means, of knowing, as there are four different forms of knowing. Many of the conditions are common to each of (the four kinds of) complex and are thus necessary for the generation of any and each form of knowing. The rest of the conditions are specific to one complex and thus make up the differences between the sources of knowledge.

All of these conditions are to some degree causal in that they are responsible for producing cognitions; they vary, however, in how much reasoning they involve. They are all considered to be responsible for the truth of the resultant instance of knowing. In the case of perception, where the main condition is a sense-object connection, the conditions are almost entirely causal; in the case of inference, where various logical conditions and relationships (such as the pervasion ("over-extension") of the existence of the ground by the existence of that which is to be proved) must be cognized, the conditions are predominantly (logical) grounds, justification.[44]

Thus the conditions for knowing is the complex of (causal and logical) conditions, both positive and negative, which is necessary distributively and sufficient collectively for the generation of knowing.

Definition of Perception

Let us now return to the definition of perception given in the Nyāya Sūtras. Here veridical perceptual cognition is defined as that cognition which arises from a sense-object connection, is not verbally designatable, is veridical, and is definite.[45]

Each of these five specifying (or differentiating) characteristics is considered by both Vātsyāyana and Uddyotakara to rule out a specific class of entities. While the definition of perception does in effect characterize veridical perception, it does this as much by excluding all the possible alternatives (and thereby ending up with perception) as by singling perception out of a set of possible alternatives.

We shall take these in the order in which they are given. The specification that perception arises from the connection of the sense to an object (*indriyārtha-sannikarṣotpannam*) is taken by Uddyotakara to exclude inferential cognitions.[46] While inferential cognitions may depend on perceptions which arise from sense-object connections, they are not themselves (directly) caused by any such connection. (This property obviously also differentiates veridical perception from many other entities, though the commentators do not fully put it to that use.)[47]

The specification that perception be a cognition (*jñānam*) excludes other mental quality-particulars (which might be produced by a sense-object connection) such as pleasure and pain.[48]

The specification that perception is not verbally designatable (*avyapadeśyam*) is considered by Vātsyāyana to exclude cognitions in which we attach a certain word to the content of the (previous or underlying?) perception; that is, a cognition in which we refer to the cognitive object by a verbal expression (internally or externally?)[49] But Vācaspati Miśra as we will see claims that the purpose of this specification is to designate a particular type of perception, nirvikalpaka perception, the first stage of perception.[50]

The specification that (sound) perception not be unfaithful (to the object), that it be veridical, excludes of course those cognitions which arise from sense-object connections and yet are erroneous.[51] Vācaspati Miśra also claims that in addition to erroneous cognitions, doubts are also excluded by the specification that perception be veridical, since they cannot be veridical or erroneous.[52]

Neither Vātsyāyana nor Uddyotakara discuss the objection that the specification that perception be veridical is superfluous in that it is an instance of knowing which has already been defined by them as veridical. Vācaspati Miśra does address this problem.[53] He claims that perception is specifically mentioned as being veridical because it is the basis for the veridicality of all other veridical cognitions. If a cognition is properly generated from a veridical perception, it will be veridical itself.[54]

The last specification, that a perception be definite (*vyavasāyātmakam*), excludes indefinite cognition, doubt, which is produced by a sense-object connection (in addition to a following soul-mind connection).[55] According to Uddyotakara those doubts produced solely by a soul-mind connection are not here excluded, as they were already excluded by the specification that a perception be sense-object connection produced.[56] According to Vācaspati Miśra, however, all doubts have already been excluded by the specification of veridicality. The specification of definiteness, according to Vācaspati Miśra, is given instead to designate a type or stage of perception.[57]

After all of the specifications and their attendant exclusions, all that is left is veridical perceptual cognition (which according to Vācaspati Miśra contains two distinct stages. We shall postpone discussion of these two stages.) We have already discussed the properties or conditions common to all veridical cognitions (in this chapter and especially in the second) and so we will now concentrate on the primary condition of veridical perception, that which distinguishes it from all other veridical cognitions.

We have seen that while knowing (*pramā*) in general is defined in terms of the characteristics of its nature, the various forms (or kinds) of knowing are defined in terms of their specific generating conditions. A whole complex of generating conditions composes the source (or reason) of a particular form of knowing. But out of this complex, one condition is sufficient (for definitional purposes) to distinguish one form of knowing from the others. There may be others, but the one chosen by the author of the sutras is considered to more essential. This specific condition alone,

however, does not necessarily distinguish this form of knowing from other entities, especially other mental states.

Uddyotakara gives an open-ended list of the complex of conditions which is necessary to generate veridical perception: the sense-object connection, the mind-sense connection, the self-mind connection, the contact of the object with light (falling on it), the shape and color (*rūpa*) of the object, the shape and color of that which is in contact with the object (i.e. the visual sense and the light), the dimension of the object, the (critical) mass of particles making up the object, memory trace, etc.[58] There are yet more.

The conditions which make up the complex which generates a veridical perception can be divided into three basic groups. The first group consists of those conditions which are common to all cognitions (including perception). This includes, for example, the self-mind connection and perhaps the mind-sense connection.[59]

The second group consists of those conditions which are specific to veridical perceptions (but to no other veridical cognitions). It includes the sense-object connection and perhaps the mind-sense connection.

And the third group consists of those conditions which are neither common to all cognitions nor specific to veridical perceptions; they are, as a whole, those which are specific to veridical cognitions. It is from among this group that we find those conditions which distinguish veridical perceptions from those other cognitions which have a sense-object connection in common. (Naturally, none of these other cognitions are veridical.) Some of these may be subtypes; for example, some kinds of mental traces are conducive to veridical cognitions and some are not.[60]

The sense-object connection then is the specific generating condition which distinguishes veridical perception from the other three forms of knowing, (though it does not distinguish veridical perception from erroneous perception or from doubt,

indefinite cognition). It alone is mentioned and accepted by the various commentators to be unique among veridical cognitions.

The Content of Veridical Perception as Determined by the Sense-object Connection

The Nyāya holds that the entire composition of the cognitive object (*viṣaya*), or content, of a *veridical* perception must be causally determined by the object as it is apprehended by a sense. This is one of a pair of assumptions – the other being that the entire content of a cognition must successfully cognitively refer – which were fundamental to many (realistic and phenomenalistic) Indian theories of perception. Diṅnāga examined these two assumptions and their relationship in a concise work, the *Alambana-parīkṣā*.

In this work, Diṅnāga claimed that for an object (*artha*) to be the support (*ālambana*) of a perception it must be identical to (or be cognitively referred to by) the cognitive object (*viṣaya*), the object as perceived, and it must be the determining cause, the object (*artha* or *vastu*) as cause.[61] When we feel something, the object of which we are tactually aware and the object which our sense touches must be one and the same object. There is no room for (objects as) causes of perception themselves being unperceived or for (parts of) the cognitive object not being a cause of their own perception. Both characterizations of the object of perception are requisite for a proper theory of perception. Just as the thesis that the entire content of a perception actually refer to the object (ultimate reality), the thesis that the entire content be determined by that object is a significant and certainly plausible candidate for being *a* necessary though independent condition of a realistic theory of perception (though it may also find its place into a antirealist theory).

That it is the sense-object connection alone which is the determining cause of a perceptual cognition is a good realistic position and appears to be close to what the early Naiyāyika had in mind. Only somewhat later, as we shall see, is it weakened with

a major concession, that some of the content of veridical perception must depend on memory. And then, the Naiyāyika seems to overlook this distinction (between determining and non-determining causes).

This condition or thesis of realism need not be justified by recourse to the other major theses. It is an independent thesis – its meaning and truth independent of the other major theses of realism in general or direct realism in particular.[62] The separate justification of it is but a small step when cognition is considered from within a causal framework such as the one of the Naiyāyika. For he holds that all noneternal entities (exist independent of cognition and) are products of causation and has observed that all veridical cognitions, especially veridical perceptions, are ultimately the result of interactions between the senses and the object.

The cognitive object, or content, of a perception (just as the external object which it actually is) can be broken down into the various ontological entities (*padārtha*) which constitute the physical object (or state of affairs[63]). These include, according to the Naiyāyika, not only the substance-, quality- and motion-particulars, but also universals (or class-characteristics), inherence, and absence.[64]

Since it is a central assumption of Nyāya that every portion, aspect, or component of the cognitive object (*viṣaya*), or content, of which one is aware in perception must be caused by a connection of the sense to the physical object being apprehended, each one of these entities (being perceived) must somehow be connected to the sense-faculty involved. And being distinct entities, each one must be (caused and) connected individually.

Since every ontological entity (*padārtha*) which is perceived must be connected to a sense, there must be a corresponding connection for each entity perceived. But a sense, a substance-particular (which is formed out of a special kind of physical material), can conjoin only with other substance-particulars. Thus only substance-particulars should be able to be perceived. But sound, a quality-particular, is

also perceived. The sound we perceive, as we will see in the next section, is not the sound produced in or by the distant drum; it is the last in a series of sounds, one producing the next, which spread from the drum to the aural sense, that portion of aether (the substrate of sound) which is located in the ear canal. This sound, the last in the series, inheres in the aural sense and is thereby perceived. Its connection then is the inherence between it and the sense.

Other ontological entities, however, cannot enter into these two relationships. Yet quality-particulars and motion-particulars as well as universals, inherence, absence, etc. are (known to be) perceived. Accordingly, if a sense is to connect with other ontological entities, it must do so via some form of connection other than conjunction (*saṁyoga*) or inherence (*samavāya*). But there are no other direct or simple relationships into which a substance-particular can enter. (And the Naiyāyika is not about to fecklessly posit completely new relationships.) These other relationships then must be complex. Thus Uddyotakara posited four other connections to account for the remainder of those entities which are perceived. Inherence in that which is conjoined (*saṁyukta-samavāya)* is posited to account for the perception of quality-particulars such as the color red (or motion-particulars such as the motion of falling) which inhere in an object such as a pot which is in conjunction with the sense; inherence in that which inheres (*saṁveta-samavāya*), for the perception of universals such as sharpness which inhere in the sound which inheres in our ear; and inherence in that which inheres in that which is conjoined (*saṁyukta-saṁveta-samavāya*), for the perception of a universal such as redness which inheres in the quality-particular red which inheres in the pot which is in conjunction with the sense.[65]

Thus the Naiyāyika champions the existence of six (distinct kinds of) connections to account for the multitude of entities that we perceive. These six are ultimately based on observation: we perceive some things and others we do not. We do see, for example, red birds flying in the open sky. We do not see them when behind closed

doors. Since some entities are perceived (and can thus be shown to exist) and their perception must be the result of some sort of connection, the Naiyāyika's job is to identify just what sort of connection is involved. And since some entities cannot be perceived, though they may exist, and thus require no connection, there is no need to look for one.[66]

Now then, if a particular sense-object connection were different, if we were to exchange one particular sense-object connection for another, as for example, when one looks around the room, then we would get a different veridical perceptual cognition. If we were to exchange any other cause than the sense-object connection, however, we would not still get a veridical perceptual cognition. We would get an erroneous perceptual cognition, another kind of cognition altogether, or no cognition at all.

There is a distinction which we should explicitly make note of since it will be useful in clarifying the issues surrounding the causation of (sound) perception.[67] While there is a similar distinction found in Nyāya literature, it is not consistently made. This is the distinction between determining causes and merely productive, or non-determining, causes. This distinction is a relative or contextual distinction – this distinction is made from the perspective of the specific result under consideration; here, veridical perceptual cognitions. It concerns only those causes which are involved in the production of a certain kind or range of result.[68]

A merely productive cause is a cause which is necessary for the existence of the result, but which has no effect on the nature of that result. Such a cause may vary, or be replaced, without there occurring a corresponding change in the nature of the result. Or it may be invariant with regard to the result in question[69], that is, if it is replaced (and hence absent) the result in question will not occur at all. Thus a merely productive cause contributes only to the existence of the result, not to its nature.

A determining cause is a cause which has does have an effect on the nature of the result as well as being necessary for the existence of that result. When they vary, or

are replaced, there is a corresponding change reflected in the nature of the result. When one functioning cause is exchanged for another, some portion or aspect of result must differ. Thus a determining cause determines the nature of the result.

Accordingly, we can see that the sense-object connection is the determining cause of veridical perception, since it is appropriately correlated with the content of the resultant veridical perception.

The Naiyāyika also has a notion which comes close to that of what we call a determining cause. He uses it frequently when he examines a group of similar effects and classifies their causes. The most prominent cause of each is usually the cause which is particular (*asādhāraṇa*), not common, to the causes of results similar to the one in question. His favorite example is the barley seed. The barley seed is the particular cause (*asādhāraṇa*) which is responsible for making a barley sprout a barley sprout and not a rice sprout or a wheat sprout. All of the other causes which are necessary to produce a sprout, such as the soil, sunshine, water, etc., are causes common to each variety of sprout and are thus not responsible for the different nature of the various sprouts. The commentators on the *Nyāya Sūtras* make use of this distinction when they discuss why the sense-object connection is mentioned in the definition of veridical perception and why other connections are not.[70]

The Particular Cause of Veridical Perception

The Naiyāyika acknowledges the sense-object connection and the mind-sense-connection as conditions common to all perceptual cognitions and absent in all other cognitions. They mention no other.

But only the sense-object connection differentiates kinds of perceptions. That is, one kind of perceptual cognition can be distinguished from another by means of the object or the sense. We distinguish perceptions into visual perceptions (*cakṣur-vijñānam*), or perceptions of form and color (*rūpa-vijñānam*), auditory perceptions, or perceptions of

sound, etc.[71] If this were extended, we might be able to distinguish between all individual perceptions according to their causal object, though not according to the sense.

In a discussion as to why the mind-sense connection is not mentioned in the definition of perception, despite the fact that it too accompanies all perceptual cognitions but no other cognitions, Vātsyāyana claims that it is like the self-mind connection (and unlike the sense-object connection) in that when a (veridical) perception varies, or is interrupted, the mind-sense connection continues on unchanged.[72]

Uddyotakara goes on to give a couple of basic interpretations of this (each of which has three or four subvarieties).[73] The most plausible and illuminating one (for our purposes), but not the one favored by Uddyotakara himself (or Vācaspati Miśra), is that when a perception varies the sense-object connection also varies, unlike the mind-sense connection which is single and constant.[74]

Vācaspati Miśra clarifies this position further (but in his own way). When, for example, the young women of a city rush out to their balconies and attentively watch the king and his army of elephants, horses, soldiers, drivers, etc. entering through the city gate, their attention is unflagging as the multifarious spectacle unfolds. During all of this, the connection of their mind and sense continues uninterrupted as their senses skip from object to object, each time forming a new sense-object connection. In this example then we can see that the mind-sense connection is constant while the sense-object connection varies.[75]

An objection was raised against an interpretation of this version of Uddyotakara. It was that neither the mind-sense connection nor the sense-object connection is manifold when a single sense connects with a complex object, as in the case of a white cow walking.[76] Uddyotakara does not accept this objection, presumably because there is not a single simple sense-object connection, but rather a complex of different sorts of

connections. That is, each variation in the content is accompanied by a different sense-object connection.[77]

Vācaspati Miśra seems to deny the validity of this interpretation in general, both the justification for lack of mention of the mind-sense connection and the objection to it cited by Uddyotakara. He claims that it is held by a minor subschool and disavows it.

I am not sure why Vācaspati Miśra rejects this position. There are two obvious alternative reasons. Either the sense-object connection really can continue as the perception changes, or the mind-sense connection itself is not invariant. Since a perception is thought to be only a couple of moments long and a sense can only stretch out and meet its object for this very short time, it is doubtful that a sense-object connection could last continuously. Besides, how then could the difference or variation in the content of the perception be explained, if the causes, external at least, remained unchanged. So it seems that the latter alternative is the most likely candidate – the mind-sense connection must be broken each time the sense-object connection is.[78]

Vācaspati Miśra, however, does not reject out of hand the objection to this interpretation brought up by Uddyotakara and which he expands. This is the case where one watches a white cow slowly moving along a path and noticing different things about it as it moves along. This is supposedly a case where the sense-object connection does not change (any more than the mind-sense connection does), though what we notice in the perception does. Presumably Vācaspati Miśra does not attempt to dispose of the conclusion of this objection because he does not accept the initial assumption – that the mind-sense connection does not change as the perception changes.[79]

In any case, the fact that in Vācaspati Miśra's illustration of a slowly moving white cow the mind-sense connection may vary or differ in some or all cases does not mean that this connection is a determining cause; it merely means that its constancy cannot distiguish it from the sense-object connection. It is not a determining cause because in

most cases the variation or difference is in the replacement of one connection (of the mind with a particular sense) with a token of the very same type – another connection between the (same) mind and the same sense. The second resulting perception should consequently be of the same type as the first (assuming we factor out any changes due to other causes). In the other cases, the difference between one connection and the next is the difference between the sense which is connected with the mind and the one which replaces it (as well as the difference in tokens). Thus the mind-sense connection does determine which sense is active and thus what object is perceived. But it has no further influence on the character of the effect, the content of the perception, other than the particularity of the resultant perception. That is, when any particular mind-sense connection is replaced by another, the particular resultant perception must also be replaced by another.

This justification (and subsequent interpretation by Uddyotakara and Vācaspati Miśra, but not the objection) shows only that the changes in the (content of a) perception are (strictly) correlated to changes in the sense-object connection when the other causes are held constant, which we assume to be the case in this example. This does not show that there are no changes in the perception or that they cannot be correlated to causes other than the sense-object connection, if the sense-object connection were to be held constant. However, no such causes have been pointed out or discussed (other than the mind-sense connection) and would appear then not to be presumed by any of our authors.[80]

The Naiyāyika thus assumes that every component or aspect of the content of veridical perception is determined by the corresponding sense-object connection. Nothing then in the content of a veridical perception fails to refer cognitively to or to be determined by the external object. But not everything which exists and may be connected to a sense is perceived. Atoms and aether, for example, are not perceivable,

even though they do connect with a sense; they are, however, cognizable through inference.

The Lack of a Causal Link Intervening between the Sense and its Object

The Naiyāyikas as well as most of their rivals operate under the assumption that in order for there to be direct perception of an external entity, whether a particular physical object, quality-instance, movement, or any of the other ontological entities, the sense faculty must reach and interact with the entity which is (perceptually) cognized.

Accordingly, either each kind of sense faculty reaches and interacts with the physical object which appears in the perceptual cognition or if it does not, then that entity which it does reach and which appears in the perceptual cognition is not the physical object. That is, either the sense reaches the physical object and we cognize the physical object or it does not reach the physical object and we cognize something else.

The sense of touch is *prima facie* the most straightforward; it is considered to truly reach out and touch the physical object. And similarly the sense of taste is simple; the object comes to it and comes into contact with the sense. In both of these cases, the sense reaches the physical object and it is the physical object which we cognize.[81]

The Naiyāyika notion of the senses of hearing and smell, on the other hand, are a bit more complicated (but are in tune with many philosophical inclinations[82]). The sense of hearing and of smell stay home and their object comes to them. In the case of hearing, the object is the last sound in a long chain of sounds[83] (one producing the next) which ultimately originated at a physical object such as a drum or rolling carriage.[84] This, of course, fits with the observations of many that what we really hear directly is not the physical object, e.g. a coach, but rather sounds which were emitted by it. And of course that with which our sense of smell (which is located in our nose) is connected is not the distant skunk, but merely odors, particles of the object, which

have been released by that object and made their way to our nose.[85] And this all conveniently ties in quite well with the Nyāya ontology. Sound and odors are explained quite easily within the Nyāya ontology and at the same time these explanations fit the world quite well; in fact, they are remarkably in accordance with science. But the case of (the sense of) sight and its object is problematic.

According to the Nyāya the faculty of sight is made up of particles of light (*tejas*). These are centered in the eyeball, but they are not identical to it. During visual perception they swiftly travel (or stretch) to the object. They travel in an ever expanding cone and thus are able to connect with large objects as well as small. They connect with each individual object and then return and are thus able to distinguish between near and far objects.[86] Thus, the sense of sight directly connects with physical objects.[87]

In order to explain how the sense of sight can directly connect with the qualities and movements of the physical object, as well as the other ontological entities, Uddyotakara posits, as we have seen, six varieties of connection.

The question of whether or not some parts of a complex sense-object connection can get in the way of others is not discussed.[88] While it might be answered that a part cannot obstruct the whole, such an answer isn't necessary; for if something moves in between one of the connectors, or if something replaces one of them, there will simply be a different connection and a different perception. That is, the constituent connections (and their respective component objects) are determining causes.[89]

If we have a chain of causes, we may guarantee the preservation of determination (from the initial cause to the final) if we either claim that the causation is strict (where no effect could be generated by different causes) or stipulate that the chain must be properly constructed, that is, all of the causes operate properly. The Naiyāyika we will see does both.

After refuting a battery of arguments that the sense of sight does not go out and meet its object, Uddyotakara and Vācaspati Miśra respond to the obvious question: what is the (positive) proof that the sense of sight does go out and meet its object?[90]

Some entities reach their effect when they bring it about, as the potter touches and molds a pot; and when they do not bring about their effect, they do not reach it, as when the potter step back from his wheel and ceases making pots. Other entities do not reach their effect but nonetheless bring about an effect.[91] An example of this kind would be a magnet which attracts a piece of iron without reaching it. Since there are two kinds of causes, a proof is necessary to decide which kind the sense of sight belongs to.

After several limited proofs, Uddyotakara (and Vācaspati Miśra) come to the proof that the sense of sight reaches its effect because ultimately nothing at all can cause an effect over a distance. For if an entity had some sort of innate capacity to bring about effects without physically reaching them, then why should it not produce those effects everywhere (and all the time)? But they don't. They require a physical connection to be active.[92]

Examples which apparently demonstrate that causation can operate at a distance are then explained away. The paradigm example wherein a cause operates across a distance is a magnet. This is a good example. But the Naiyāyika easily disposes of it (and accounts for the magnets behavior) by claiming that in reality there are little magnetic particles which reach out from the magnet to the piece of iron which it attracts, much like the sense of sight or a ray of light. Thus there really is some sort of contact between the magnet and the attracted iron; there is no need to accept causation at a distance. For the examples which apparently support causation at a distance can all be accounted for without such causation.[93]

Thus because of the his theory of causation and his understanding of causal determination, the Naiyāyika embraces the position that all senses meet and are

connected with their objects, the actual content of the resultant perceptual cognition. We perceive only that with which our senses are connected and this means that we hear only the sounds actually located in our ears and that our sense of sight goes out to what we see.

This sort of analysis and consequent problem is not uncommon in the West either. Russell claimed that since it is the very last cause in a chain that brings about our perceptions it must be this that we actually see.[94] That is, what we actually perceive must be our own brain.[95]

The Nyāya theory of visual perception is according to the lights of contemporary science obviously wrong – neither the sense nor the physical object move to the other, yet we do see objects which are at a distance as distant. But this is of course not our concern here. What we are interested in is how the Naiyāyika ended up where he did. The primary reason is that he did not make any sort of distinction between (direct) causation and (sometime indirect) determination.

Let us return to the distinction between determining causes and productive causes. We can refine this distinction further, if we make it a distinction between the determination and the production of the nature of a result.

One entity *X* determines the nature of another entity *Y* just in case the nature of *Y* is somehow dependent on, or dictated by, *X*. If we have a causal chain leading from the initial cause *X* to the final effect *Y*, the nature of the final effect is determined by the initial cause if its existence and nature are correlated or linked to that of the initial cause. Thus, if *X* determines the nature of *Y*, the nature of *Y* will vary when and only when *X* varies. We thus treat the intermediate links in the chain as irrelevant as long as they do their job and pass on the information to the next link, even though they are a necessary part of the process.

We are interested in determination within causation. The causation of (the nature of) an object would be much as we described it before: an effect would be the result of

all its causes and these causes would exist immediately before the effect. Some of these direct causes might be determining factors as well as causes - determining causes. And some might be merely productive causes. And some determining factors, on the other hand, might not be a direct causes of a certain effect, being separated from it by other links of a causal chain.[96]

This is a phenomena which is freely acknowledged today. Telephones, televisions, radios, and computers are all examples where the actual determining factor is far removed from the final result, but which are responsible for the nature of that result. And the process of perception, by means of the nervous system, is likewise generally considered to an example of this kind of phenomenon.

The point then is that the determining factor is ultimately responsible for the nature of the effect by way of the chain of causes terminating with the final cause. The final cause will be closely correlated to the initial cause, or the original situation. It will be correlated to the point that the final cause will reflect all the relevant factors (or information) of the initial cause. Any other factors, irrelevant or even contradictory to those of the initial cause, which might find their way into the nature of the intermediate links (and which if passed on could adversely affect the final cause) are cancelled out along the way. Thus the nature of the final cause is highly dependent on that of the original cause: all the significant or relevant factors (or bits of information) of the original cause are reflected in the final cause and all the extraneous or irrelevant factors (or noises) which are generated in the long process of causation are cancelled out.

The content of perceptual cognition is ultimately determined by the initial cause in a chain. When and only when this initial determining cause varies, does the content of a perceptual cognition vary. Thus when and only when the physical object (and the light reflect off of it), the initial determining cause of a chain eventually leading up to the perception), varies, does the cognitive object, or content, also vary.

The perception of sound is in fact a good example of causal determination. You and I hear the same (sound emitted by a struck) drum, but we don't hear the sound in each others ears! Though the sound emitted immediately by a drum when struck does not directly cause our perception of it, it does determine the content of that perception.

The sound that reaches our ears is strongly determined by the sound which initially left the sound source. The character of the initial sound is preserved in the transmission and is faithfully reproduced in the final sound. As a result, the content of our perception (of the sound of a drum) is determined by (the sound emitted by) the drum.

The Naiyāyika's assumptions that causation and determination are not distinct and that causation and hence determination must be between contiguous entities, however, prevented them from understanding the phenomena of sound propagation in these terms. Instead, the Naiyāyika was forced to chose between the sense's leaving the body, the physical object's physically uprooting itself to come to the sense, or the physical object's not even being the cause (and content) of our perception.

There is a sense in which we hear the sound which hits our eardrum - for it is this sound which (directly) causes our perception; but there is also and equally the sense in which we hear the drum being struck - for it is this initial sound which causally determines the nature of our perception.

The Naiyāyika's insistence on the tenet that causation cannot occur at a distance dissuaded them from accepting determination at a distance, or indirect causation by means of a causal chain. Consequently, the Naiyāyika, as we shall see, will tolerate no intervening factors between the sense-object connection and the resultant cognition in the generation of savikalpaka perception.[97]

The Determining Cause of the Content of Perception

In a discussion about the origins of perceptual error and the fact that it is to found in cognitions and not in the object, Uddyotakara points out that while a veridical perception is causally derived from the object, an erroneous perception is not necessarily derived solely from something which is not the object.[98] For when we mistake a piece of shell for a piece of silver, our sense of sight is still connected to the shell, and not the silver.

The point that Uddyotakara wants to make is that erroneous perception still arises from the object which is connected to the sense, even though it does not refer to it. This fact is closely linked with the perception's status as erroneous. It is erroneous in that it is a perception which does not refer to the external object which actually causes it. If it did refer properly, that is, to what caused it, it would be veridical.

In fact the characterization of erroneous perception in terms of reference is parallel to that in terms of causation. An erroneous perception is a perception of one thing when something else is the case and similarly is a perception of one thing when something else is its external cause.

Vācaspati Miśra points out that it is a bit more complicated.[99] While a veridical perception is derived from the object (and not from anything else), an erroneous perception is derived from the object (the shell) and from something else (though still not the silver). This is necessary to account for the appearance of the silver as well as the shininess, since there is no presence of silver to generate any appearance of silver. Thus the content of a veridical perception is determined solely by the object as connected to the sense, while the content of an erroneous perception is determined partially by the physical object and partially by something else, namely memory which is inappropriate. Memory then is the source of error.

There is a natural correlation between the source of error and the content of error. For just as some of the content of error is derived from the object and some is not, some of the content of error is veridical and some is not.

As we saw before, the content of an erroneous perception is not totally erroneous – some of it is erroneous, but a kernel of it must be veridical.[100] A hallucination or dream, however, is a different story, for none of it will be veridical, even by coincidence.[101]

That which appears to inhere in the substance and which actually does inhere in it is veridical. The awareness of this veridical component is derived from the object (as connected to the sense). And that which appears to inhere in the (present) substance in a perceptual cognition but which does not actually inhere in the substance in the world is erroneous. The awareness of this erroneous component is derived from something other than the object, from the memory (in the form of activated memory traces or instances of remembering).

Accordingly, in the case of erroneous perception and even in the case of hallucination, the awareness of that portion of the content which appears to inhere in the substance but which actually does not is caused by memory, while in the case of erroneous perception alone the awareness of that portion which appears to inhere in the substance and which actually does is causally determined solely by the object as connected with the sense.

The Nature of the Content of Veridical Perception

Thus veridical perception is distinguished from other cognitions by the fact that it alone is causally determined by its associated sense-object connection. But what about its nature? As we saw earlier, cognitions in general are differentiated solely by their content. So how does the content of veridical perception differ from that of other cognitions? Does it differentiate veridical perception from other forms of veridical cognition (such as sound inferential cognition)? Does it differentiate veridical perception from erroneous perception?

The Nyāya school would reject many of the distinctions commonly held in Western philosophy. It does not, for example, distinguish between the content of veridical perceptions and other cognitions by distinguishing between images (or objects) and symbols (or language) and that between external, physical content and internal, mental content.

The Naiyāyika, like most Indian philosophers, assumes that we always think in terms of images or objects (*viṣaya*), and never in terms of symbols. We not only perceive objects (or images of objects); we also conceive of objects whenever we reason, infer, fantasize, comprehend language, guess, etc. There is only one kind of content of cognition. And this does not provide a basis for differentiation.

As we saw earlier, a cognition for the Naiyāyika has no form of its own (*nirākāra*), any form (or characteristic) that it appears to have actually belongs to the real constituents which make up the physical object external to it.[102] All of these components are real entities, they belong to objects which actually exist and which were experienced in the past. And they are external, beyond the creation and influence of the mind. Consequently each component in the content of veridical perception is external and real like that of all other cognitions.

And as we saw earlier, this characterization blocks the argument that since some cognitions which appear to be of the real world actually fail to refer (to the real world) then perhaps all fail to refer (and are merely mental images).[103] At the same time, however, this characterization waters down the notion of cognitive object (*viṣaya*) when applied to a veridical perception. That is, veridical perception no longer has the special access or relationship to the world which is frequently attributed to it, since all cognitions (perceptions, inferences, dreams, hallucinations, fantasies, guesses, etc.) embrace the world. Perception cannot be considered the (only) direct window to the world.

If all cognitions have external reals as the components of their content (*viṣaya*), then is there anything in or concerning the content of veridical perceptions which will differentiate it from any other kind of cognition? The only distinction which veridical perceptions have with regard to certain other cognitions is one that it shares with all veridical cognitions: the fact that they are veridical.[104]

We saw earlier that the object of a veridical cognition is slightly, but significantly different from that of a erroneous cognition. Given a pair of apparently identical veridical and erroneous cognitions (two cognitions which are indistinguishable to our consciousness), there is at least one real component which is present and inheres in one of the objects and which does not inhere in the other.

There are two kinds of erroneous perceptual cognitions with which it will be instructive to compare and contrast veridical perceptions: an erroneous perception which arises out of almost the same causal conditions as a veridical perception but whose content is significantly different from it and an erroneous perception whose content is apparently identical to that of a veridical perception but which arises from significantly different causal conditions.

Let us begin with the same example that we used before. Suppose there is a piece of shiny shell lying along side a path. A person comes by and looks at the shell. He accurately sees the shell as a shell. What he sees is the substance-particular shell possessing (inhered in by) the universal being-shell (as well as the quality-particular silver color).

Then another person comes by and also looks at the shell. He is mistaken and thinks that he sees a piece of silver. What he sees is the substance-particular shell (bereft of any distinguishing characteristics) possessing (inhered in by) the universal being-silver which does not actually so inhere. The only difference between the content of both of these men's perceptions is that the first sees the universal being-shell as inhering in the substrate and the second sees the universal being-silver so inhering.

Now let us compare this to a different erroneous perception. In this case there is an actual piece of silver lying along side the path. A third person comes by and looks at this silver. He is mistaken and thinks that he sees a piece of shell. The perception of this third person, however, is not the same as that of the first person even though they both think they see a piece of shell. The content of their respective perceptions differ. The content of the perception of the first person includes the substance-particular shell (as inhered in by the universal being-shell) and that of the third person includes the substance-particular silver (as inhered in by the same universal).

As an aside, I will point out here that an erroneous perception of the second kind and a veridical perception appear to be causally indistinguishable as well, for they seem to lead to the same sorts of activity. The Naiyāyika could hardly accept this, not only because the difference of their natures is important, but also because of his theory of strict causation. This theory rules out the generation of two tokens or instances of the same effect from different sets of causes, complexes which contain at least one cause of a different type.[105] It would thus not only rule out the possibility of two different causal complexes generating two perceptions with the same content, one veridical and the other erroneous – differing from each other only because they have different referents – it would also rule out the possibility that these two different perceptions, one erroneous and the other veridical, could in turn generate the one and the same resultant activity (which is required to ascertain their different truth values). The problem of an unnoticed or unnoticeable distinction between the content of erroneous and veridical perceptions, we shall find, weaves its way throughout the Nyāya account of perception.

Thus the content of a veridical cognition and that of an erroneous cognition are fundamentally different. Accordingly a veridical cognition could never be (or have been) an erroneous cognition, and vice versa. One and the same cognition could not be in existence under different circumstances and be either veridical or erroneous

according to these circumstances. There can be no change in the world which determines the veridicality (and erroneousness) of a cognition without a corresponding change in the composition of the nature of that cognition. Consequently, the Naiyāyika can reject the localization problem which is problematic to the realist (where one and the same cognition can exist in different causal and cognitively referential (truth determining) relationships).

Since we have found a distinction between the contents of veridical cognitions and erroneous cognitions, if we can also find a distinction between the contents of perceptual and non-perceptual cognitions, we will be able to distinguish fundamentally between veridical perceptual cognitions and erroneous perceptual cognitions.

For the most part, however, the Naiyāyika does not discuss any such distinction, since it is not crucial in the Nyāya definition of veridical perception. The Naiyāyika does occasionally state that perception, unlike other cognitions, is immediate (*sākṣātkārin*).[106] But what does this mean to a Naiyāyika? For Vācaspati Miśra it seems primarily to mean that the object is in view, is present (here and now).[107]

The object need not be adjacent as long as it is in our view and within the range of the senses. Something that has already happened or something beyond the reach of the senses cannot be perceived.[108] The object of perception then must be present (as opposed to the object of inference which need not be present).[109] Vācaspati Miśra, unfortunately, does not feel the need to analyze this notion any further. He does not divide it into causal and phenomenological components.

But this is not a characteristic which is sufficient to differentiate perception from other cognitions. For the object of an inferential cognition may also be present, even though one would not ordinarily infer what one can see.[110] And yet the contents of a perceptual cognition and that of an inferential cognition of one and the same object situated right in front of the observer and in full view would nonetheless differ from one another.[111]

The distinction between (the nature of the content of) perceptual and non-perceptual cognitions is not philosophically important. The metaphysically important distinction, given that the Naiyāyika holds that cognitions are without their own form, is the distinction between the nature of veridical and erroneous cognitions. It is this distinction which allows the Naiyāyika to stave off the threats of idealism and localization (of cognitions).

Summary of the Basic Nyāya Theory of Perception

The Naiyāyika concept of source (or means) of knowing is defined in terms of the concept of knowing - whatever conditions or reasons are necessary and sufficient to generate an instance of knowing is a source of knowing. But there are in fact only a few possible kinds of causal (complexes which serve as) routes to knowing, the four sources. Accordingly, the source of knowing is conceptually parasitic on the concept of knowing. It cannot thus serve to define or distinguish instances of knowing from veridical cognitions which are not instances of knowing as (as we shall see) its analogue does in the West. Then again, the Naiyāyika claims that there are no such cases, knowing being those cognitions which are veridical.

The Naiyāyika assumes the thesis that the content of a veridical perceptual cognition must be completely determined by the sense-object connection (whereas an erroneous one is also determined by other causes). But because of his theory of causation (and its relationship to determination), the Naiyāyika holds that determination must be direct, contiguous. There can be no intervening causal links between the determining cause and its effect. Thus he is forced to conclude that all senses directly connect with their objects and thus must go to meet their objects if their objects do not come to them. The only determining cause is the object as connected to the sense and there are no intermediate causal links between it and the resultant perceptual cognition. This

position would seem to preclude any contribution of memory to the make up of the content of perception.[112]

This position also seems to preclude the intervention of anything between the sense-object connection and the resultant perceptual cognition. Both of these additions, however, are made by Vācaspati Miśra and will be discussed in the next chapter.

Thus the Naiyāyika assumes the thesis of contentdetermination, a thesis which is considered by many to be a essential condition of perceptual realism (and perhaps any viable theory of perception).[113] But the direct realist who holds this thesis is generally plagued by the phenomena of localization and the cluster of arguments which seem to follow from it. This phenomena is a corollary of the plurality of causes. And this is, as we have seen, simply the fact that any effect (under different circumstances) can be (or could have been) caused and determined by many different causes (and causal complexes). A fire, for example, might be caused by a match when struck, a bolt of lightning, or a magnifying glass concentrating the sun's rays (all with their appropriate supporting causes). According to this phenomena then, while the content of one cognition might be determined by a certain causal complex, the same content of another (or one interchangeable with it) might be determined by a different complex. That is, any content can be (or could have been) determined by numerous different causal complexes. Thus while any one causal complex can only determine one cognition, the reverse need not be true.

The Naiyāyika, however, would reject the claims of the plurality of causation and the phenomena of localization. No effect (under different circumstances) can be caused by a plurality of different causal complexes; each effect can only be caused by a single complex. As a result the content of any cognition can only be determined by a single causal complex. And this fits nicely with his view that the content of veridical and erroneous perception cannot be the same. Accordingly, he avoids the various arguments from localization which include, for example, the claims that a perceptual

cognition could hardly be direct, if it could be caused by different objects, and that it could not be (justified or properly generated) knowledge of a distant external world, if all we really know is the world right before us.

Though the fact that the object of veridical perception is present (causally and referentially) does not in all cases differentiate perception from other cognitions (inference being the occasional, but significant exception), it does preclude any perceptual cognition the object of which contains past elements from being (totally) veridical. Just as any portion of the content of a perception which is not derived from the object, any portion of the content which is past would end up being erroneous.[114] This then must be addressed when Vācaspati Miśra admits that the content of all perceptual cognitions contain a component which is past, not only that of identification (*pratyabhijñā*).

The composite cognitive object (*jāty-ādimad-artha-viṣaya*) of perception is not fundamentally (or qualitatively) different from that of inference (or analogical or verbal knowing). Thus the intuition that perception is primary must find its expression solely in the thesis that veridical perceptual is cognitively immediate. A perceptual cognition of an object or portion of an object is cognitively immediate if that perceptual cognition of that object or portion is not necessarily preceded by the prior cognition of another object or portion.[115] This proves problematic for the later doctrine of nirvikalpaka and savikalpaka perception.

The content of veridical and erroneous perceptions differ on a phenomenological level. Accordingly, the argument from illusion does not pose the problem it does to most realistic systems. The argument from illusion relies on the admission that the state or content of a veridical perception and a corresponding erroneous perception (or hallucination) are not in themselves qualitatively different in order to show that they both must be internal states which are logically independent of their external referent, that is, the content of veridical perception and erroneous perception both must have a

character which cannot be put in terms of or in reference to the external world.[116] Thus that which we directly perceive is not the external world. But the fact that the content of a veridical perception and that of a corresponding erroneous perception are not admitted to be identical (or interchangeable) disarms this argument.

Thus we see that the Naiyāyika theory of veridical perception so far is basically a direct realist theory. The percipient cognizes immediately the physical object which is an external and awareness-independent continuant and cognizes nothing more. This continuant is a composite of a whole substance-particular as inhered in by its attributes.[117] And the content cognized is that same continuant as it cognized as inhered in by a selective portion of its attributes. Those components of this cognitive object of which the percipient is aware are each one causally determined solely by a connection of those components with a sense. And if any were determined by something else, they would be erroneous.

Thus the Nyāya theory of perception addresses many of the major issues and problems pertaining to direct perception. By doing so, it quite naturally exposes areas which need to be clarified and adjusted.

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1 "Defining by giving the characteristics (*differentia*) of a class that distinguish it from other subclasses that also fall within a more general class (*genus*)." Peter A. Angeles, *Dictionary of Philosophy*, p. 57.

2 "uddiṣṭasyātattvavyacchedako dharmo lakṣaṇam" See *NBh* Introduction to 1.1.3, p. 181.21.

3 "samāna-jatīyam anumānādi, asamāna-jatīyam pratyakṣābhāsa-prameyādi / tebhyo viśeṣakatvam viśeṣah" *NVTT*, p. 209.4.

4 See *NM*, p. 61.7-9.

5 "sutrārthas tu samānāsamāna-jatīya-viśeṣakatvam" *NV*, p. 199.7.

6 Even the definition of a general class relies on the distinguishing of its members from all others.

7 See Ernst Windisch, *Ueber Das Nyāyabhāshya*, cited in H. H. Randle, *Indian Logic in the Early Schools*, p. 49.

8 "pramāṇato 'rtha-pratipattau pravṛtti-sāmarthyād arthavat pramāṇam" *NBh* I.1.1, p. 1.1.

9 "sa yenārtham praminoti vijānāti tat pramāṇam / yo 'rthah pramīyate jñāyate tat prameyam / yat tad artha-vijñānaṁ sa pramitir iti" *NBh* I.1.1, p. 1.10.

10 "pramāṇa-svarūpāvadhāraṇaṁ kartavyam / kiṁ punaḥ pramāṇasya pramāṇatvam kiṁ voktam bhavati pramāṇam iti upalabdhi-hetuḥ pramāṇam, upalabdhi-hetutvam pramāṇatvam / yad upalabdhi-nimittaṁ tat pramāṇam iti" *NV* I.1.1, p. 9.3.

11 "na ca saṁśaya-viparyāsa-rūpopalabdhi-kāraṇayo prasaṅgaḥ, arthavad ity adhikārāt, tayos copadarśitārtha-vyabhicārenānarthavattvāt" *NVTT*, p. 35.2. See also: "pramāṇam / arthavad iti / nityayoge matup / nityatā cāvyabhicāritā / tenārthāvyabhicārīty arthaḥ / iyam eva cārthāvyabhicāritā pramāṇasya yad-deśa-kālāntarāvasthāntarāvisaṁvādo 'rtha-svarūpa-prakārayos tad-upadarśitayoḥ" *NVTT*, p. 24.21-23.

[12] In the course of excluding recollection from the class of knowing, Vācaspati Miśra accepts the commonly held meaning of knowing as a veridical cognition other than recollection. "lokādhīnāvadhārano hi śabdārtha-saṁbandhaḥ / lokaś ca saṁskāra-mātra-janmanaḥ smṛter anyām upaladhim arthāvyabhicārinīṁ pramām ācaṣṭe" *NVTT*, p. 35.10-12.

[13] "yady api sāmānya-lakṣaṇenaiva vyabhicāriṇo nirastāḥ pratyayāḥ tadapekṣaṁ ca viśeṣa-lakṣaṇam ..." *NVTT*, p. 224.8-9. This general definition is not to be found in the *NS*, so presumably Vācaspati Miśra had the *NV* or his own *NVTT* in mind.

[14] The definition of knowing in the *Tarka-bhāṣā* by Keśava Miśra, for example, specifies that knowing is a veridical (*yathārtha*) presentative experience (*anubhava*). See *Tarka-bhāṣā*, p. 8.

Cf. "pramā cāviparītopalabdhiḥ / ato 'viparītānubhavajanakatva-lakṣaṇam avyabhicāritvam eva prāmāṇyam ity arthaḥ" *NVTP*, p. 79.9-10.

[15] That knowing is definite is implied both by the fact that it is veridical and by the fact that it is a presentative experience. See chapter two.

[16] See *NVTT*, pp. 35.5-12, 35.24 and 186.27-187.1.

[17] See chapter two.

[18] Vātsyāyana and Uddyotakara generally ignored this problem and treated the framing of the definition of perception (and of the other forms of knowing) as a problem only of singling out the entity in question. Vācaspati Miśra, on the other hand, did justify the inclusion of what might be considered redundant conditions.

[19] "indriyārtha-sannikarṣotpannaṁ jñānam avyapadeśyam avyabhicāri vyavasāyātmakaṁ pratyakṣam" *NS*, p.197.11-12.

[20] It may need to be qualified in order to exclude all and any cognitions which include in their causal complex a sense-object connection.

[21] See *NBh*, p. 198.2-10.

[22] It is also possible, though unlikely, that this word was corrupted.

[23] The fourth condition, however, is problematic, whether it is a condition in the definition of perception in particular or whether it is a condition in the definition of knowing in general.

Once, however, a more complete definition of knowing was given, it became unnecessary to exclude specifically these entities under the definition of perception, since they are already excluded by the fact that perception is an instance of knowing. Accordingly, Vācaspati Miśra justified his interpretation of the definition of perception in the *NS* by admitting that these entities were already excluded and therefore concluding that the words must have another purpose, a not uncommon technique among commentators (used to add their own views).

[24] "lokādhīnāvadhārano hi śabdārtha-saṁbandhaḥ / lokaś ca saṁskāra-mātra-janmanaḥ smṛter anyām upaladhim arthāvyabhicāriṇīṁ pramām ācaṣṭe" *NVTT*, p. 35.10-12.

[25] "ata āha avyabhicārīti, yad atasmiṁs tad iti tad vyabhicāri, yat tu tasmiṁs tad iti tad avyabhicāri pratyakṣam iti" *NBh*, p. 198.13-14. Cf. "kaḥ punar ayam viparayaḥ? atasmiṁs tad iti pratyayaḥ" *NV* 153.1-2. In Navya-Nyāya it is usually formulated as "tad-abhāvavati tat-prakāraka."

[26] See J. N. Mohanty, *Gaṅgeśa's Theory of Truth*, p. 56-58.

[27] For an analysis of the minimal theory of truth, see Paul Horwich, *Truth*.

[28] "kaḥ punar ayam viparayaḥ? atasmiṁs tad iti pratyayaḥ" *NV* 153.1-2.

[29] This account of error will be substantially modified once we have introduced the division of perception into two distinct but causally related stages, the nirvikalpaka and the savikalpaka stages. The account of the nature of error will remain basically the same, but that of its origins will be altered.

[30] See *NVTT*, p. 163.7-15.

[31] The Naiyāyika, like the Bhāṭṭa Mīmāṁsaka, holds that error is a positive and unitary judgement. This opposes the view held by the Prābhākara Mīmāṁsaka, that error

is the awareness of a perceptual element and of a memory element but not of their identification. That is, while we may see the object before us and remember some silver, we do not actually identify the silver we remember with the object that we currently see. But if error is not a positive judgement that something is silver, but simply the awareness of that something and of silver and not of their identity, then how are we to explain that the person who has the error thinks he sees something which is silver and proceeds to go over to it and pick it up? If there is no identification of the silver seen elsewhere with the object seen here, the action to obtain it would not follow. Thus the Naiyāyika holds that the action resulting from an erroneous perception and the one from the corresponding veridical perception would be essentially the same. This does, as we shall see, cause problems for the Naiyāyika analysis of error, for if the effects are the same, the causes will have to be too according to the Nyāya theory of strict causation. See chapters eight and nine.

[32] The taking of one thing to inhere in another is, strictly speaking, the awareness of one thing as inhering in another (that is, the awareness of the second thing as inhered in by the first).

[33] See *NBh* IV.2.34.

[34] See chapter two.

[35] See *NM*, p. 84.

[36] See *NM*, pp. 12-14.

[37] Uddyotakara points out that the source of knowing *(pramāna)* is distinct from the other conditions of knowledge in that it is the most efficacious cause (*sādhakatama*) of knowing. He then goes on to give seven different possible meanings (which are not mutually exclusive) for the term 'most efficacious cause'. Their significant points are briefly: the presence and absence of the source of knowing determines the presence and absence of knowing - if it is present, an instance of knowing (of a particular object) must arise; 2) there can be no instance of knowing without the presence of the

appropriate source of knowing; 3) the other conditions (especially the subject and the object) cannot contribute to the generation of an instance of knowing until the source of knowing is present; 4) the source of knowing is the last to operate – if it is a connection, such as the one between the sense and the object, it is the last to be formed before the instance of knowing arises; 5) the source of knowing is followed immediately by an instance of knowing; 6) the source of knowing is the particular cause to a specific instance of knowing (an object may be involved in various cognitions, just as the subject may have different cognitions); and the source of knowing particularizes or differentiates that contact which is the cause (*kāraṇa*) of the instance of knowing. See *NV*, pp. 9.25-10.13. Meanings six and seven will prove to be the most relevant in the following discussions.

[38] See chapter eight.

[39] This is made especially clear in later Naiyāyika discussions of *pramāṇya-utpatti* (as *parataḥ*) which are motivated primarily in response to those philosophers which hold that cognition is in some sense inherently veridical and so its veridicality is generated by the same conditions which generate cognitions in general. Vācaspati Miśra does not seem to have explicitly singled out this topic for discussion, though Jayanta Bhaṭṭa did. See *NM*, pp. 146-60. For a full discussion see Mohanty, pp. 59-65.

[40] The logical (extensional) equivalence of the whole complex of conditions, including the source of knowing, and the instance of knowing, the result, is a consequence of the Naiyāyikas adherence to a theory of strict causation (see chapter two) and, as we will presently see, is reflected in the classification of forms of knowing and the parasitic definition of source of knowing.

[41] See chapter nine.

[42] We have seen that Uddyotakara, for example, gives a long open list of the conditions for veridical perception. See *NV*, p. 200.6-8.

[43] There are those who claim that one can ascertain the truth of a cognition by checking to see whether or not all of the conditions hold. See *TS* ks. 2931-40, pp. 773-74.

[44] The role or aspects of causation and (evidential) justification in the generation of knowing will be discussed in chapter eight.

[45] "indriyārtha-sannikarṣotpannaṁ jñānam avyapadeśyam avyabhicāri vyavasāyātmakaṁ pratyakṣam" *NS*, p.197.11-12.

[46] See *NV*, p.204.3-5. And see *NV*, p.206.11-13.

[47] Uddyotakara acquiesces to an objection and allows that while term 'definite' excludes indefinite cognitions which are not caused by a sense-object connection, indefinite cognitions which are caused by a sense-object connection are already excluded by the term 'sense-object-connection-produced.

[48] See *NBh*, p. 198.23-199.5 and *NV*, p. 203.23-24.

[49] See *NBh*, p. 198.1-10.

See *NV*, p. 203.24-204.2.

[50] See *NVTT*, p. 220.7-14.

[51] See *NBh*, p. 198.11-14 and *NV*, p. 204.6-7/13.

[52] See *NVTT*, p. 225.23-26.

[53] See *NVTT*, p. 225.1-12.

[54] Vācaspati Miśra cites a second reason for the condition of veridicality. The veridicality of perception alone cannot be ascertained until after the perception has taken place; it must be ascertained by an examination of its results. That of the other forms of knowing, however, can be ascertained before they are completed. See *NVTT*, p. 224.7-225.1. This will be discussed in chapter nine.

[55] See *NBh*, p. 198.15-22.

[56] See *NV*, p. 204.14-21.

[57] "iha dvayī pratyakṣa-jātir avikalpikā savikalpikā ceti / ... / tatrāvikalpikāyāḥ padam avyapadeśyam iti, savikalpikāyāś ca vyavasāyātmakam iti" *NVTT*, p. 220.7-10. "tasmād avyabhicāri-padenaiva saṁśaya-jñāne niraste savikalpaka-pratyakṣāvarodhārtham upādīyamānaṁ vyavasāyātmaka-padaṁ saṁśaya-jñāna-pratyakṣatāpākaraṇam anvācinoti" *NVTT*, p. 225.25-26. "vyavasāyātmaka-padam sākṣāt savikalpakasya vācakam / tathā hi vyavasāyo viniścayo vikalpa ity anarthāntaram" *NVTT*, p. 226.2-3.

[58] See *NV*, p. 200.6-8.

Uddyotakara does not list any negative conditions, though they are considered to part of the complex.

[59] The mind-sense connection and its proper group will be discussed in the following pages.

[60] That is, in certain cognitive contexts, some kinds of mental traces are conducive to veridical perceptions and some are conducive to erroneous perceptions.

[61] See especially the commentary on the second *kārikā*. "It is right (to consider) that any thing, which produces a cognition which bears its representation (i.e. the representation of that thing), is, only it, the cognitions's support, because it has been taught that in this way it is the determining condition of the birth (of the cognition)." See Fernando Tola and Carmen Dragonetti, "Diṅnāga's *Alambana-parīkṣā-vṛtti*," p. 124.

[62] See chapter one.

[63] That is, a complex of individual objects. An example would be a book lying on a table or a cluttered library full of books, papers, chairs, cups, etc.

[64] See chapter two.

Atoms and hence their ultimate differentiating characteristics, however, are not perceptible.

[65] See *NV*, pp. 199.9-200.4 and *NVTT*, pp. 209.15-211.5.

[66] But the fact that something is not perceptible does not necessitate that it cannot be connected with a sense. Atoms and the aether are not perceptible, but the

aether is always connected with the senses and atoms are connected when the substance-particular which they compose is perceived.

67 The term 'causal determination' will be used to distinguish the phenomenon under discussion from that called 'causal determinism'.

68 This is not inconsistent with the doctrine that for every change in the cause (or causal complex) there will be a corresponding change in the effect, for there is no denial that a change in what we term the productive cause will produce a change in the effect; the effect, however, will no longer be a member of the set of effects under consideration. It is as though we first look at a certain range or set of effects and then ask in each case what changes in its causes are possible which will change the nature of the effect but still keep it within the range set down.

69 Whenever a certain result is considered, this cause is always present and constant.

70 "yac cāsādhāraṇam kāraṇam tad vyapadeśabhāg bhavati / tadyathā, ṛtvādi-kāraṇa-sannidhānāt prādurbhavann aṅkuro na rtv-ādibhir vyapadiśyate, api tv asādhāraṇena bījena vyapadiśyate yavāṅkura iti, tathehāpīty adoṣaḥ" *NV*, p. 200.22-24.

71 indriyārtha-sannikarṣa-grahaṇam vā viśeṣakatvāt / yad indriyārtha-sannikarṣād upajāyate vijñānaṁ tasyānyatarad viśeṣakaṁ bhavati / indriyam artho vā tad-viśeṣakam, tena vyapadeśāt /yasmād idaṁ vijñānam indriyena vā vyapadiśyate arthena vā, rūpa-vijñānam iti vā cakṣur-vijñānam iti vā / *NV*, p. 200.17-20.

72 "manasas tarhīndriyena saṁyogo vaktavyaḥ? bhidyamānasya pratyakṣa-jñānasya nāyam bhidyata iti samānatvān nokta iti" *NBh*, p. 197.18-19.

73 See *NV*, pp. 200.12-201.8.

The other basic interpretation is simply that the mention of one condition particular to perceptual cognition – one connection out of the two – is enough to differentiate perceptual cognition from other cognitions.

74 "indriya-manasoḥ saṁyogasya vā agrahaṇam, bhede 'bhedāt / yasmāt pratyakṣa-jñāna-bhede indriya-manas-saṁyogo na bhidyata iti" *NV*, p. 200.25-26.

75 See *NVTT*, p. 213.14-17.

76 "yady abhedād agrahaṇam indriyārtha-sannikarṣasyāpi tarhy agrahaṇam ekendriya-grāhyeṣv abhedād iti prāptaṁ yathā śuklo gaur gacchatīti" *NV*, p. 201.26-201.1.

Vācaspati Miśra's interpretation of this passage in the *NV* differs from mine.

77 Uddyotakara does not explicitly justify his reason for disagreeing with this argument.

78 See *NVTT*, p. 213.118-22.

79 If Vācaspati Miśra had disagreed with the objection that the reason the sense-object connection is mentioned at the expense of the mind-sense connection cannot be that the sense-object connection alone varies when the resulting perception varies since in actuality the mind-sense connection too does not (at times) vary, he would presumably have said so and how. Thus while Vācaspati Miśra may not have agreed with the *ekadeśin*'s argument, he used illustrations with which he was comfortable.

80 This will, however, change when we discuss the two stages of perception.

81 See *NS* III.1.58 and the comments thereon.

82 We are more willing to say that we don't really hear the coach but instead hear a sound emitted by it than to say that we really don't see the mountain but see light reflected by it.

83 Sound waves travel through the aether as a sequence of sounds (quality-particulars which inhere in portions of the aether) arise and pass away due to a chain of conjunctions and disjunctions of those portions of aether.

84 See, for example, *NVTT*, p. 440.17-20. "bheri-daṇḍa-saṁyoga-prerito vāyuḥ karṇa-śaṣkulim antam ākāśam prāptaḥ śabdasya vyañjakaḥ evam vaṁśa-dala-vibhāga-prerito vāyuḥ śabdasya vyañjaka iti draṣṭavyam / saṁyoga-vibhāgau paramparyena, nadas tu

sākṣād iti"

[85] See *NS* 3.1.58 and the comments thereon.

[86] See *NS* 3.1.32 and the comments of *NBh* and *NV*. See also *NVTT*, p. 216.21-26 and p. 217.8-10. See also *NV*, p. 201.11-13: "sāntarasyārthasya viprakṛṣṭadeśāvasthitasya grahaṇam dṛṣṭam, na tu cakṣuṣas tenārthena prāptir asti, bhūta-viśeṣasyendriya-bhāvāt / ya evāyam kṛṣṇa-sāra-lakṣaṇo bhūta-viśeṣaḥ sa bāhya-bhūta-viśeṣa-prasādānugṛhītas tat-tṛṣṇapūrvaka- karmāpekṣaḥ cakṣur ity ucyate" and *NVTT*. p. 214.18-20.

[87] The Nyāya conception of sight does contain some general elements which are common to the contemporary account of visual perception. Light (though in the form of the sense) moves instantaneously in a straight line between the object and the eye. The direction, however, and the fact that the light is the medium are significant and obviously cannot be easily factored out, unlike the early understanding of electricity in the West which was able to explain many previously unexplainable phenomena, but which reversed the direction of what physically moved, the electrons.

[88] But see *NVTT*, p. 216.21-26 and *NVTT* on *NS* III.1.32.

[89] Because substances alone have dimension, all component connections might be considered not to be noncontiguous! The space between the self (though all-pervasive) and the sense, however, must be separated by the superintending mind.

[90] See *NV*, p. 203.13 and *NVTT*, p. 218.8-11.

[91] Cf. *NS* & *NBh* V.1.8 where it is stated that sorcery or bewitchment (*abhicāra*) can operate over a distance.

[92] See *NV*, p. 203.18-22.

[93] See *NVTT*, p. 218.18-20.

[94] For example, Russell said "that what the physiologist sees when he looks at a brain is part of his own brain." *The Analysis of Matter*, p. 383. And he said the "observer, when he seems to himself to be observing a stone, is really, if science is to

be believed observing the effects of the stone upon himself." *An Inquiry into Meaning and Truth*, p. 15, quoted in Ayer, *The Central Questions of Philosophy*, p.82.

[95] See chapter seven for further discussion of this problem.

[96] In fact, the last link and the intermediate links also determine the nature of the effect, but because they pass on rather than originate the effect of determination (or information) they are not to be considered determining factors.

[97] The important question is whether something other than the sense-object connection (or the object as connected with the sense) also contributes to the determination of the nature of a veridical perception.

[98] "sarvaṁ ca viṣayād vijñānam bhavatīti tatograhaṇam anarthakam iti / nanu ca mithyā-jñānam atasmād api bhavati, na hy atasmād tad bhavatīti / kim tarhi? atasmiṁs tad bhavatīti" *NV*, p. 207.10-12.

[99] "tasmāt tata eva yad bhavati tat pramitiḥ, na tv evam mithyājñānam, tad dhi tatas cātataś ca bhavatīty arthaḥ" *NVTT*, p. 240.2-3

[100] *NS* IV 2.37 and *NBh* and *NV* thereon.

[101] It appears that a veridical cognition cannot come from the non-object cause.

Chapter nine will discuss the fact that no cognition, including hallucinations and dreams, can be even coincidentally veridical.

[102] See chapters one and two.

[103] See chapter two.

[104] This distinction, as we have seen, has not been reified into an abstract property common to all occurances of veridical perception.

See also: "na hi pramāṇaṁ tattvenānavadhāritam bodhakatva-mātreṇa svagocarāvadhāraṇāyālam tāvanmātrasya tadābhāsa-sādhāraṇyāt, api tu bodhakatvaikārtha-samavetenāvyabhicāritvena / tad eva hi prāmāṇyam...." *NVTT*, p. 24.5-7.

[105] We are, of course, talking of the nature of a content itself, and not of it in relation to any other entity or withing any system.

[106] "vyavasthām darsayati yadā sannikarṣo vyāpāra indriyādeḥ pramāṇasya tadā jñānam ālocanaṁ vā savikalpakaṁ vā sākṣātkāravadvijñānam pramitiḥ phalam" *NVTT*, p. 188.23-25. *NVTT*(K), p. 102.8-10 has "sāksātkārijñānam."

[107] In a discussion of the primacy of perception Vācaspati Miśra says: "tad anena dhūma-vyāpakatvopadhānena dhūmād gamyamāno vahniḥ parokṣa iti darśitam / anupahita-prakāśas tu pratyakṣenāvyavahita-vahni-svarūpa-prakāśaḥ / sa hi sākṣātkāra iti / tāvad ayam pramātā sākāṅkṣo yāvad upadhāna-vyavahitaṁ svarūpam upalabhate / upadhānānapekṣas tu pratyakṣenāvyavahitaṁ sākṣād vahnim viṣayīkṛtya nirākāṅkṣo bhavati" *NVTT*, 192.17-20.

[108] "tatropadeyam idam salilam iti buddhir anāgatopadana-viśiṣtaṁ salilam ālambamāna na sākṣātkāravati, salilamātra-sākṣātkāras tu syāt / na ca tanmātram asya phalam, api tu_upadeyata / sa ca parokṣa, anāgatatvat" *NVTT*, p. 189.1-3. "anena parokṣārthatvam sucayaty anumānasya, pratyakṣaṁ tv aparokṣārtha-viṣayam" *NVTT*(K) II.1.31, p. 380.14.

[109] "sadviṣayaṁ ca pratyakṣaṁ sadasadviṣayaṁ cānumānam / kasmāt? traikālya-grahaṇāt - trikālayuktā artha anumānena gṛhyante / bhaviṣyatīty anumīyate bhavatīti cābhūd iti ca / asac ca khalv atītam anāgatam ceti" *NBh*, p. 292.8-10.

[110] "sad-viṣayaṁ ca pratyakṣam sad-asad-viṣayaṁ cānumānam ... bhaviṣyatīty anumīyate bhavatīti cābhūd iti ca" *NBh*, p. 292.8-10. "ca viṣaya-bhedaṁ samuccinoti / sad iti vartamānam / asad ity atītanāgate / pratyakṣaṁ hi laukikaṁ vartamāna-viṣayam eva / anumānaṁ tu traikālya-viṣayam" *NVTT*, p. 323.16-18.

[111] The difference between the source of each is, however, significant.

[112] We have seen, however, that Uddyotakara does mention that memory traces are included in the causal complex of perception (see above). He does not, however, discuss their role. Thus either he must admit that perhaps memory does contribute and veridical perception does derive from more than the object, or that it might cause but does not determine the content. In either case, the causality of

memory would have to be simultaneous to that of the sense-object connection. This would imply that the memory was triggered by something preceding, probably an earlier instance or token of the sense-object connection. If so, the theory would have to contend with some sort of time-lag argument. See chapter seven.

113 For example, see D. M. Armstrong, "Perception, Sense-data, and Causality," *The Nature of Mind and Other Essays*.

114 Unless, however, that portion which is actually past is perceived as past! There are then these two exceptions: identification (*pratyabhijñā*), or recognition, and synthetic perception (*parāmarśa*). In synthetic perception, although activated memory traces (or remembering) are involved in bringing it about, the content does not include any reference to a past (object of) experience. The added element is the general characteristic that the locus of the present instance of the reason (*hetu*) is pervaded (in general) by the property to be proven (*sādhya*). In identification, the content refers to a single object in the present state as having been (the same object) in a past state. It is controversial, however, as to whether or not these should be classified as perception. We will return to this later.

115 See chapter six for a stricter definition of cognitive immediacy.

116 Or, as we saw in chapter two, the contents of both are (at least) made up of external reals. The question of the reality and externality of the entire composite physical object will be explored in the following sections.

117 Here attribute includes the quality-particulars and movement-particulars (as inhered in by their own universals) as well as the universals of the substance-particular itself all of which inhere in (and individuate) the substance-particular.

4
Early Theories of Conception

Vācaspati Miśra brought the Nyāya theory of perceptual knowing up to date. He incorporated into the Nyāya theory several concepts and distinctions which had developed in the intervening centuries from the last authoritive defense of the Nyāya system and which had already been adopted by both his opponents and his allies.

Foremost among these is the division of the process of perception into several stages. Vācaspati Miśra divided the perceptual process into three stages: sensory perception (*nirvikalpaka pratyakṣa*), recollection (*smaraṇa*), and conceptual perception (*savikalpaka pratyakṣa*). The first stage is immediate perceptual cognition devoid of conception. The second stage is the recollection of prior occurances of the object and provides a framework within which to place it. And the third stage is perceptual cognition which synthesizes the content of the earlier stages and classifies the object. Thus he distinguishes two kinds of perceptual cognitions. And he acknowledges the role of memory in conceptual perception and the lack of it in preconceptual perception.

During the 5th and 6th centuries a revolution in the analysis of perception took place. Conception was given a more a prominent role in what is ordinarily considered perception. A battle then ensued over the status of this kind of cognition, the need for a prior stage of cognition, and the nature of these two kinds of cognition. That is, is this kind of cognition really perceptual or is it the result of reasoning? Does it require a prior cognition to come into existence? And just what does the content of each of these two kinds of cognition consist in? Years later the Naiyāyikas responding to this

revolution incorporated several of the ideas which had surfaced and modified them according to their system. They claimed that what is ordinarily considered perception is indeed perception, although it does involve conception. But they also accepted the positing of a prior stage of perception which is pre-conceptual and anchors the conceptual stage. And they put all of this into realistic terms.

Vācaspati Miśra intended to be true to the essence of the earlier Nyāya theory while updating it in areas that needed supplemention or revision. We shall examine his update in this chapter and whether his additions and modifications are merely small secondary adjustments or whether they tamper with the core of the Nyāya theory in the next.

Before we look at Vācaspati Miśra's theory, we will briefly look at conception in general and then at the theories of several innovators who accepted and explored conception and whose ideas directly or indirectly influenced those of Vācaspati Miśra.

Conception

Conception is a form of judgment. A percipient judges that an object is something. He takes the object to be one thing or another. He takes something, for example, to be a dog, or a Bernese Mountain Dog, or simply an animal. Thus conception involves classification or recognition. It is more than merely the awareness of disinctions or characteristics in an object, characteristics which themselves determine class membership or impart the commonality between similar objects. Rather it is the awareness that the object is a member of a class which has other members or an instantiation of a universal which has other instantiations. Thus it must in some sense go beyond the present object.

The object is classified by means of or in terms of a concept and a conceptual scheme. An object is taken as an instance of something. And what it is classified or recognized to be is understood beyond this particular application. The percipient, for

example, understands not only that this is a cow but also what a cow is. He understands that it is a member of a class which has other members with which he is familiar.

It is not, however, the result of any inference which might be drawn when the object is recognized. The percipient recognizes that the object before him is a cow and understands what a cow is, but he does not infer from this that the cow has four stomachs.

Thus conception is more than simple awareness of the object and less than an inference which fills in or extends the information presented. A cow may be white, may appear to us as white, but unless we take it to be white, we do not know that it is white and we won't behave and speak as though it is white. But we don't infer that it is white, we see that it is white.

Thus it is not enough just for one to know that something is a member of a class or is an instantiation of a certain universal; one must also know just what that class or universal means or consists in. And this may entail that one know of and understand other members of that class or other instantiations of that universal.[1]

The comprehension of an object, the act of taking something for what it is, may be characterized in many different ways. It is may be considered to include or imply the cognition of more than the object before the percipient. And this surplus may be in the form of a property which does not exist in or belong to the present object, perhaps a mental universal. It may be the allusion (or reference) to what are remembered or imagined to be some or all of the other members of the same class. Or it may be the terms in which the object is represented or the placement of the object within a conceptual frame work which provides this information.

The comprehension of an object is based (at least partially) on ones memory of ones past experience. And it is natural to assume that it is the cognition of any surplus information over the present object which is derived somehow from this memory.

Conception is subjective, it depends on a mental mechanism and a storehouse of memories. It is by means of a conceptual scheme or a store of concepts that one gives meaning to the content of his experiences. Concepts or their cognitive counterparts, whatever their nature, are present in conceptual cognitions.

Since conception is subjective, it will be useful to distinguish it from another subjective notion with which it is usually intertwined. This is the notion that we are immediately aware only of a mental image of a physical object rather than an external object itself.[2] This is the bedrock of idealist and representational realist theories. The image of a physical object is the object according to the idealist and it represents the object according to the representative realist. This image, however, may or may not be conceptual. It may simply be an image and not function as a vehicle for understanding or classication. Though in most theories of idealism and representational realism it is at least somewhat conceptual.

The lack of such an image likewise does not preclude the content of a perceptual cognition from being conceptual. Most naive realist or direct realist theories, however, do not provide an account of conception.

While most theories of idealism and representational realism are also theories of conception and most theories of naive realism are not, there are exceptions. Rudimentary theories of idealism, for example, are not usually also theories of conception. They hold that everything seen is mental, but they do not acknowledge that everything seen is necessarily *taken* by the percipient to be something when it is seen. Thus they do not provide an account of how the percipient understands or classifies something.

Sophisticated theories of realism, however, may be theories of conception. While they hold that any object seen is an external object, they may also hold that it is understood to be what it is by means of a subjective conceptual scheme. The theory of Vācaspati Miśra we will find is such a theory.

Thus conceptualism is not concomitant with idealism and representational realism. The content of a perceptual cognition may be the actual external object (and causally determined by that same object) and nevertheless also be conceptual.

Conception is naturally linked with language, the tightness varying according to the theory. The concepts of conception and the meaning of language are for the most part the same. They are both predicated on the repeatability of elements of experience. But conception need not be reduced or equated to language. The way one characterizes or classifies in perception isn't necessarily the way one does it through language. For example, while the colors we see are influenced to some extent by the words we have for them, they are not completely determined by these words. The Indian philosophers which we shall examine, however, do equate the two.

We will now turn to three innovators in the area of perception: Bhartṛhari, Diṅnāga, and Kumārila Bhaṭṭa. Each of these were among the first to incorporate concepts and distinctions which prefigured elements of Vācaspati Miśra's theory. While they may not have always been the very first to have come up with these ideas, they are important because they played crucial roles in the development of them and because they were recognized by Vācaspati Miśra to be the principal proponents of certain major theories of perception which utilized them.

Bhartṛhari

Around the time of Bhartṛhari the idea that cognitions - veridical as well as erroneous - not only involve conception, but are conceptual by nature began to gain ground. Bhartṛhari is the first, at least among those whose writings survive, who took this to heart and created an intellectual system which incorporated conception at a fundamental level. Certainly there were others before him who noticed and used elements of conception. Most observed that cognition was judgmental (*niścaya* or *adhyavasāya*) by nature. Many held that all ordinary cognition is subject to

preconceptions and rife with subjective discrimination (*vikalpa*), all to some degree false.[3] Others held that the universals by which objects might be classed are not real, external entities.[4] And most acknowledge that words and their meanings were learned from observing the usages of their elders. But there is no evidence that any of them put forth a theory of cognition which details a systematic mechanism of conception by means of which or in terms of which information about the world is structured and interpreted.

Bhartṛhari introduced conception in terms of a theory of language. His major interest and perspective is that of a linguist first. As it is often quoted, Bhartṛhari claimed that grammer is the royal road to liberation.[5] But he dealt with areas which are of interest to philosophers as well as linguists. And in many of these he merges linguistics with philosophy. Still Bhartṛhari's notion of the world in general and his theory of cognition and conception in particular were created from the perspective of a linguist.

Bhartṛhari found language, broadly conceived, everywhere. Meaning as conception or as category is involved in everything that is thought and everything that exists. Bhartṛhari claimed that language, or Word (*vāk*) is the stuff of the universe. But he understands language to be more encompassing and more sophisticated than what we ordinarily understand language to be. It encompasses both signifee or meaning (*vācya*) and sign or utterance (*vācaka*). But the degree of differentiation between these is dependent on the level at which language is manifested. Bhartṛhari recognizes three levels or stages of manifestation in cognition.[6] Language is undifferentiated at the first level and becomes completely differentiated, audible and comprehensible, at the third.

At the first stage or level (*paśyantī*) a Word (*vāk*) is one and devoid of all differentiation and sequence. It is the subtle word or expression (*sūkṣmā vāk*) and not yet mental. At this stage sign (*vācaka*) and signifee (*vācya*) are not yet differentiated. They are, however, potentially differentiated.[7] At the second stage (*madhyamā*) the Word is

differentiated and may have some sequence. It has entered into the intellect (*buddhi*) and is mental. But it has not yet been externalized – no sentence has been uttered – and is thus inaudible. It is differentiated into sign and significance.[8] At the third stage (*vaikharī*) the Word is external and audible – a sentence has been uttered by the speaker and is understandable by the hearer. The expression is associated with the breath (*prāṇa*) as it passes through the place and organ of articulation. It exhibits a temporal sequence as well as differentiation in sign as well as significance.[9]

Bhartṛhari proposed that all cognitions are filled with language – not just those in which language is comprehended or whose content is expressed. No cognition, including perception, is devoid of language.[10] Sign and meaning are present in all cognitions, though manifested in different degrees of differentiation. Thus all cognitions bear some meaning and are, as we shall see, conceptual.

Bhartṛhari does admit that there are occasions when what we ordinarily consider perception is preceded by an inchoate cognition, but denies that it is completely devoid of language. One has an initial perception of an object which is vague and subsequently has a second perception of the same object which is clear and definite. The difference between the content of the two steps of perception is a matter of degree rather than of kind. The content of the initial perception is more general and thus ambiguous with respect to more specific features. But its nature is essentially the same as that of the subsequent perception, entwined with language.[11]

Bhartṛhari is interested in the meaning of language and the conception or classification of objects. He explains how we conceive of objects but he does not examine the ontological status of these objects – whether, for example, they are actually external objects or simply ideas. He is interested only in the content of cognitions, in what we conceive, and what we can express. This is where the meaning of words is to be found.[12]

According to Bhartṛhari the content of a cognition is a single integrated object. This object is the smallest meaningful unit of cognition. It is expressible by a sentence, the smallest meaningful unit of language. In fact it is a manifiestation of a sentence, the content being a form of language.[13] Similarly the comprehension of a sentence will generate the cognition of a single integrated object.[14]

Sentences, sequences of sound and their meanings, are considered by Bhartṛhari to be unitary and indivisible. A sentence is not simply a concatenation of sounds or even words. And its meaning is not simply a aggregate of properties. A sentence is a single expressive unit. And the real meaning of a sentence is a single integrated object or state of affairs.[15]

For practical purposes, however, these indivisible sentences and their unitary meanings can be analyzed *(apoddhara)*. Bits of language and bits of meaning are abstracted out of sentences, by noticing correlations between the presence and absence of one with the other.

The meanings are broken down into meaningful bits and correlated with words, affixes, etc. Words, roots or stems and affixes, bear much of informational load. These are combined within an overall web of relationships to form a sentence. Thus beyond the words, there is a building up of various syntactical connections (*saṁsarga*). These various interconnections between words delimit the words' individual meanings. The primary connection is the relationship of qualification.

Thus the meaning of a sentence, the single object, can for the purposes of understanding and communication be analyzed through abstraction as a collection of universals and particulars which are arranged according to various qualifying or differentiating relationships (*viśeṣana-viśeṣya-bhāva*). These constituents, however, have no independent meaning.

Bhartṛhari settles on universals and particulars as the meanings of words when sentences are (artificially) analyzed into sentences. He then goes on to define particulars

as a variety of universal: a universal which is delimited by another universal.[16] Particularity is thus relative.

A word differentiated into sign (*vācaka*) and meaning (*vācya*) first expresses itself by expressing its own universal (*śabda-jāti*) and then expresses the object as this universal is superimposed on to the universal of the object (*artha-jāti*).[17] Thus the percipient is aware of the word-universal (*śabda-jāti*) and the object-universal (*artha-jāti*) as well.

It is unclear exact what the word-universal consists in. Iyer assumes that it is the property common to all occurances or utterances of the same word, the entity on which grammatical operations are performed.[18] Herzberger claims that it is a mental universal which corresponds to or stands in for the universal which resides in, qualifies, the physical object, whatever ontological status it may actually have.[19]

Common to both of these interpretations is the fact that the word-universal is first cognized and then superimposed in some way onto the universal of the object. In this way the subjective word-universal classifies the object-universal and thus the object itself.[20] It mediates between the understanding of the percipient and the object cognized, it imparts meaning to the object upon which it is superimposed.

Word-universals bear much of the conceptual load in cognition. They determine not only what we see, but how we see it, how we understand what we see. This is a function of which universals are applied and the significance of those which are applied. Which universal is manifested is determined by the fit between the object and the universals which the percipient remembers and how he understands their range of application.[21] (Novel universals are not discussed.)

Because there can be a discrepancy between the percipient's word-universal (that is, his classification of the world) and the object in the real world which triggers the word-universal's manifestation (= the object-universal?), there is room for error. Thus error arises for Bhartṛhari when one's preconceptions – in the form of one's store of

universals and particulars – causes one to apply an inappropriate universal or particular to an object.[22]

While objective universals, universals which make up an object, account for the identity and nature of an object, subjective word-universals provide significance to the object for the percipient. They provide the means whereby or terms in which the percipient can understand or interpret the object. The universal will be applied to many different objects, and link them together for the percipient. The significance of a universal might be envisaged roughly as the range of possible applications of the universal.[23] Thus when a specific word-universal is manifested it carries with itself a significance beyond simply the current instantiation.

Conception is more than simply being aware of an object as it is characterized – of an object differentiated (*viśiṣṭa*) by repeatables such as universals, qualities, and so forth. The content of a cognition contains a subjective word-universal, or concept, in addition to the object. The percipient links the awareness of the universal of the object with his awareness of a meaningful internal universal. This universal is what gives the object meaning. One does not merely see a cow which is white, one takes it to be white. One is not simply aware of the object, one recognizes the cow and classifies it as white. And the percipient does this by superimposing the word-universal onto the universal of the object, the cow.

Conception requires in addition to universals and particulars a qualifying relationship (*viśeṣana-viśeṣya-bhāva*). There is no conception without it. It is a necessary portion of the meaning which is expressed by the sentence element of a cognition. Thus the meaning of the content of a cognition is more than the summation of the meaning of its component universals and particulars just as the meaning of a sentence is more than the summation of the meanings of its component words.

The qualifying, or differentiating, relationship is a constituent of the meaning of a sentence. This relationship is distinct from the universals and particulars. The

relationships of qualification expressed in a sentence are not repeatable, but contingent. Thus there can be no universal or the like which can be internalized and applied again at a later time. Universals, on the other hand, are repeatible and permanently connected to specific words.

The meaning of the qualifying relationship between two words in certain compounds cannot be reduced to or derived from the meaning of the stems of the two component words. Similarly, the meaning of the qualifying relationship between two words in a sentence cannot be reduced to or derived from the meaning of the stems the two words.

The cognition of the overall integration of several universals, like the universals themselves, is caused by the object just as the integration, like the universals, refers to the object. The contents of cognitions reflect the makeup of their objects. Objects are integrated entities and thus the contents of cognitions are too.[24]

Thus conception requires an integrated object. It requires qualification, or differentiation (*viśeṣa*). And it requires universals (and particulars) which are subjective entities which possess some sort of a priori significance in their own right. When they are applied to an object their significance is independent of it but frames or imparts meaning to it.

Bhartṛhari reaffirmed the centrality of conception. He introduced a mechanism of conception which functions by means of subjective word-universals drawn from the percipient's storehouse of memories. This mechanism classifies objects in a way which frames the object and makes it meaningful to the percipient. At the same time Bhartṛhari recognized the importance of the relationship between the universals and claimed that such relationships are important constituents of the meaning of sentences and cognitions.

Diṅnāga

Diṅnāga's theory is the culmination of a development which began in the earliest strata of Buddhist theorizing. Antecedents to Diṅnāga's theory can be found in the earliest Buddhist writings as well as those immediately preceding, though they exhibit differing degrees of development.

Diṅnāga certainly was not the first to propose a distinction between the functions of sensation and judgment, or conception. The distinction between the simple awareness of an object and the classifying of it, affixing a name to it, etc. may already be present in some of the writings of the early Buddhists. Stcherbatsky claims to find this very distinction in two of the five groups (*skandha*) into which the early Buddhists divided the person. He links nirvikalpaka perception to consciousness (*vijñāna*), which he characterizes as pure sensation, and savikalpaka cognition to perception, or discernment, (*saṁjñā*), which he characterizes as the operation of abstract thought.[25]

Warder, however, feels that *saṁjñā* originally was the mental registration of a sense experience and only later came to include the identifying of it through a concept.[26]

Another precedent may also be found within the eighteen elements (*dhātu*) where a distinction is made between the five kinds of sensory awareness (*pañcendriya-vijñāna*) and mental awareness (*mano-vijñāna*). Sensory awareness is simply the awareness of one of the sense-objects. Mental awareness consists in the synthesis of the object of various sensory awarenesses into a single objectand the affixing of a label to it.[27] The former as conceived by the early Buddhist holds the seed for nirvikalpaka perception; and the latter, savikalpaka cognition.

The Vaibhāṣikas embraced this distinction. Sensory awareness is understood as simply the awareness of an object, an awareness of blue color, for example. Mental awareness is the awareness of the *name* of the object as well as the object itself.[28] It is

the awareness that the object is blue (*nilam iti*). Diṅnāga himself refers to this passage in his *Pramāṇasamuccaya*.[29]

The Vaibhāṣikas developed this distinction further. They distinguished between the kinds of objects (or aspects of an object) which were cognized in each of these kinds of awareness. They specified that the content of sensory awareness is the particular or individual character (*svalakṣaṇa*) and that of mental awareness is the general or common character (*sāmānyalakṣaṇa*) in addition to the particular character.[30]

The Sautrantikas adopted much of the Vaibhāṣika theory of perception, but adapted it to their own ideas. Vasubandhu, for example, in his *Abhidharmakośa*[31] understood *svalakṣaṇa* purely in terms of cognition (*āyatana*) rather than in terms of the object (*dravya*).[32]

Diṅnāga introduced a strict dichotomy between perceptual and inferential sources of knowledge. And he distributed the various functions of sense awareness (*indriya-vijñāna*) and mental awareness (*mano-vijñāna*) between them. He placed sense awareness in the division of perceptual cognition. He was unable to place all of mental awareness as traditionally understood in either division. Thus Diṅnāga divided up the function of mental awareness between the two divisions. In the first stage (which occurs according to Dharmakīrti at the third moment) the individual character is perceived by the mind (*manas*), and in the second stage the general character is inferred also by the mind. The first stage is mental perception (*mānasa-pratyakṣa*) and is devoid of conception while the second is inferential cognition (*anumāna*) and includes conception.[33]

The division between perceptual cognitions and inferential reasoning may have, according to some[34], a different lineage from that of division between the kinds of awareness (*vijñāna*) and twofold character (*lakṣaṇa*) of their object. In the *Yogācārabhūmiśāstra* Asaṅga, when giving his account of the three sources of knowledge - perception, inference, and tradition (*āptāgama*), gives suggestive definitions of perception and inference. He defines perception as direct (*aviparokṣa*), neither deduced by reason nor

deducible by reason (*anabhyūhitānabhyūhya*), and without error. He defines inference as knowledge through imagining.[35] The second condition of this definition of perception may possibly foreshadow Diṅnāga's definition; and the third condition, Dharmakīrti's[36].

The author of the *Vādavidhi* and supposedly the brother and colleague of Asaṅga, Vasubandhu, reduced the number of sources of knowledge to two: perception and inference, an innovation which was later adopted by Diṅnāga.[37] He defines perception as that cognition which arises from the object. Vasubandhu then tightens this definition by stipulating that perception derive from the object alone and not from the process of imagination or from linguistic convention.[38]

This definition was certainly familiar to Diṅnāga since he criticized and corrected it meanwhile claiming that the text in which it occurs wasn't really written by his teacher, Vasubandhu, or if it was, it wasn't quintessentially his.[39]

We do find a trace of both of these lineages in a passage of the Vaibhāṣika Vasumitra where he says that the functions of the five sense consciousnesses is only to "perceive (lit. to take) the individual aspects (*svalakṣana*) (of their external correlatives): (they have) no thinking (faculty) (*avikalpa*) at all."[40]

Many of the ideas associated with Diṅnāga are not found for the first time in his writings. Most have histories which go back at least to his teachers and perhaps further. Diṅnāga's major contribution is the tight synthesis and explanation of these ideas. He acknowledged the conceptual nature of what is ordinarilly considered perception and noticed its similarity to verbal comprehension and explained both in terms of inferential reasoning. And he proposed that perception itself is without commonality and inexpressible and thus prior to conception. And he gave each of these two sources of knowledge a sphere of their own. Let us now turn to a brief discussion of these ideas.

Diṅnāga saw the importance of conception in cognition. He agreed with Bhartṛhari that cognitions such as inferential cognitions, verbal cognitions, and erroneous

cognitions, involve some sort of conception. He even agreed with Bhartṛhari that those cognitions which are ordinarily considered to be perceptual cognitions also involve conception. For they classify their objects in terms of universals and the like by drawing on a stock of concepts stored in memory. But he did not accept these cognitions as true perceptual cognitions. They have a content which contains common, repeatable elements which are thus expressible. Thus they are not truly the result of a sense's contact with the object. They are really the result of reasoning and memory and are thus cognitions of reason, or inferential cognitions (*anumāṇa*).

He recognized a stage of perception prior to this and claimed that this is true perceptual cognition. It alone is produced from the contact of the object with the senses and has a content which contains no general, repeatable, or expressible elements. He reserved the term 'perception' (*pratyakṣa*) for this stage alone. Thus Diṅnāga was one of the first to divide what is ordinarily called perception and considered to be a simple process into two stages or levels.[41]

Diṅnāga recognizes only two kinds of veridical cognitions: perceptual and inferential cognitions. These two are distinguished according to their content (*viṣaya*). Perceptual cognitions have as their content an individual character (*svalakṣaṇa*) – a characteristic or characteristics which are individual to the object – and arise from a contact of the object with a sense. Inferential cognitions have as their content a general character (*sāmāṇya-lakṣaṇa*) – characteristics which are common to the objects of a class – and derive from the process of reasoning aided by memory.

The content of an inferential cognition, a cognition which results from inferential reasoning in a broad sense[42], is a general object, that is, an object seen solely in terms of general attributes. It is contains mental construction (*kalpanā*), that is, a linking (*yojanā*) of individual-identity, universals, and the like (*nāma-jāty-ādi*). These are general, repeatable entities, each of which is the denotation of a specific class of word.[43] Thus the content of an inferential cognition is an object as qualified or differentiated by these

general entities or attributes.[44] For example, Sabaleya, a certain white cow walking down the lane, is an object differentiated by the general entities or attributes of cowness (a universal), white (a quality), walking (an action), horned (a substance), and the individuality or essence of Sabaleya (personal-identity, *nāma*).

Each of these general attributes is found in other objects of the same class and is the condition which determines the members of the class. Every cow, for example, is qualified by the universal cowness. But only Sabaleya is qualified by her own unique individuality.

Thus individual-identity (*nāma*), or object- and personal-identity, is considered by Diṅnāga to be a repeatable attribute. There is something found in an individual throughout its existence which accounts for its individuality. It is this which is the meaning of a proper name.[45]

These five supposedly exhaust the ways in which a single object can be described or qualified. They do not address those relationships which an object might have with other objects, or states of affairs, nor do they pertain to the parts which make up the object.[46]

Perceptual cognitions (*pratyakṣa*) are cognitions which are free from all mental construction (*kalpanā*).[47] They present the world as it is in itself. They present it without any interpretation or classification. That is, the content of a perceptual cognition does not present any characteristics of the present object as common to any other object besides the present object. It does not refer to, or even suggest, anything, objects or universals, which exist outside the present object. They present the character of the object as it is, solely as the character which belongs to or makes up the individual object.

Diṅnāga readily acknowledged that those cognitions which are ordinarily considered to be perceptual are in fact conceptual. But at the same time he denied that they are actually perceptual. They are not truly born from sense contact with the object, for they

are born from some thought process, the entrance through which conception in fact enters. They are a variety of cognition of inferential reasoning (*anumāna*).

Perception

There is a real world and it is knowable.[48] It forms the content of perceptual cognitions and only perceptual cognitions. An object in or view of this world (*viṣaya*) can serve as the cause for the perceptions of different individuals, and thus is public.[49] It cannot, however, serve as the cause and object of perceptions of different sense-modalities for the same person, for the objects of the different senses are distinct and they produce different perceptions.[50] Nor can it serve as the cause and object of perceptions at different times.[51] The combining of these into a single object is done at the following, conceptual level. Similarly the recognition of an object – the judgment that that which is cognized (*viṣaya*) in one perception belongs to the same object (*artha*) as that which is cognized in another – is also done at the following conceptual level.

Diṅnāga posits a separate kind of cognition to access this world, the world as it really is. It is pre-conceptual, its content is devoid of anything meaningful to the percipient.[52] And its content is completely inexpressible.[53]

This kind of cognition is brought about by means of a sense-object contact. There is thus no participation of the mind or of memory. No comparison or contrast with other objects remembered can take place. And repeatable entities, if there are any, cannot be cognized as repeatable or common. For only the information immediately present can be conveyed through the senses.

Thus one perceives the character which belongs to or makes up a specific individual object at the time of its perception (*svalakṣaṇa*). This individual character consists in those specific characteristics which the object individually possesses or is made up of, but which have not been conceptually differentiated, which have not been compared with and distinguished from other previously perceived objects.[54]

They may be those characteristics which belong uniquely to the perceived object or they may be those characteristics which belong to the perceived object and which may be understood as belonging to other objects when cognized in a following conceptual stage (*anumāṇa*).[55] This assumes that the reference is preserved to some degree when one moves from one view of the object (*prameya*), in perception, to the other, in conception or inference. That is, the reference of both stages of cognition are in some way the same.

In the *Pramāṇasamuccaya* the contents of the savikalpaka cognitions which are examined are invariably single objects. Cognitions of multiple objects and cognitions of the components of objects are never considered for discussion. These contents, the five kinds of general characteristics - which are predicated of single objects - are all predicated of the same object within each cognition.

The contents of nirvikalpaka perceptions are individual characters, each of a single object. These are all inferred from the individual character perceived in the preceding, nirvikalpaka perception. Since the inferred properties coalesce around a single object, the properties from which they were inferred should too. In fact, they should all have the same locus (*dharmin*).

Thus the content of nirvikalpaka perceptions and savikalpaka cognitions is limited to a single object, at least this is all that is considered.[56]

Strictly speaking, there is not a single characteristic or set of characteristics which when viewed by perception are individual and when viewed by inference are general. The individual character is ultimately real (*paramārthasat*) and belongs to or makes up the object, but it is not perceived as one or as many. The general characteristics are not ultimately real, though they are conventionally real and linked by inference to individual characteristics, and are common to other objects, in the sense that the object is grouped with other objects according to this link.

Since the content of a perceptual cognition is devoid of all mental construction or conceptual interpretation and consists solely of the world as it is, the object as its individual character, there is no room for error. The content of perceptual cognition cannot be inappropriate or mistimed with respect to reality, for it is reality.[57] There is no room for a discrepancy between what is perceived and what is the case.[58]

Inference

What is ordinarily considered to be perception is actually an inference. It is the second stage of a process beginning with true perception. The content of this inferential cognition is an object which is composed of general or common characteristics, and is thereby recognized or classified.[59] It is inferentially derived from the content of the preceding perception. We shall call this stage perceptual inference, to differentiate it from perception proper and from instances of inference which are not directly derived from perception.

The content of this inferential stage consists of a general, integrated object. The general characteristics which comprise this object are inferred from the individual characteristics which are perceived in the preceding perception. But not all of the properties of the object are inferred. Only those which have a known relation with an inferential mark are.[60] Those properties which are inferred are general in character. They are not particular properties which are limited to the particular object.

Since perceptual inference is a form of inference, let us now very briefly examine the nature of inference. One may infer that an object has one property (*dharma*) *S* from the fact that it has another property *H*, only if he knows that those objects which possess the property *H* are restricted to (*na vyabhicarati*) those objects which also possess the property *S*. That is, one may infer that an object has property *S* from the fact that it has property *H*, only if he knows that the class of objects which possess the property *S* includes (*vyāpnoti*) the class of objects which possess the property *H*.[61]

Thus when one has an inferential cognition following a perceptual cognition we have the following. One infers that the present object has a certain common characteristic from the fact that one has perceived that it has a certain individual characteristic, since one knows that those objects which possesses the individual characteristic (or its functional equivalent) is restricted to, included among, those objects which possess the common characteristic.[62]

But for Diṅnāga, common characteristics, such as universals and the like, are not ultimately real. Their function in his system is taken over by exclusion, or separation (*apoha*). Each of these exclusions divides the universe in two. One class is the analogue to the class of objects which possess a certain universal and the other is the analogue to the class of those which do not.[63]

In terms of this separation, one of the halves is the class of objects which are other than (and incompatible with) the object under consideration[64], and the other is simply the class of objects which remain. Or in other words (and in reverse order), one of the halves is the class of objects which are *not* seen as different from or dissimilar to each other in one respect and the other is the class of objects which *are* seen as different from or dissimilar to the members of the other class.[65]

The members of the group of which the present object is a member are presumably not seen as dissimilar to it or each other. But they are not seen as similar to it and each other either, since similarity would be a repeatable property akin to a universal and Diṅnāga denies that such entities exist in an ultimate way.[66]

Thus the earlier formulation will be recast in exclusionary (*apoha*) terms. One infers that the present object is one of the objects which remains when incompatible objects are excluded because of the fact that one has perceived that it has a certain individual characteristic, since one knows that those objects which possesses the individual characteristic (or its functional equivalent, perhaps an individual

characteristic which is not cognized as dissimilar to it) is restricted to, included among, those objects which remain when incompatible objects are excluded.

The object has many properties, only some of which can be inferred.[67] Those that can be are concurrently inferred. With each exclusion, the object is narrowed down.[68] In the case of the inference of a blue lotus, for example, non-substances are excluded, leaving those things which possess qualities. Non-earthen substances are excluded, leaving substances with an aroma. Stinky substances are excluded, leaving substances with a sweet fragrance. This may include all inferable properties. But again, not all of the properties of an object are inferable.

This results in a general, integrated object. It is the object or objects which remain after all other objects are excluded. In the case of perceptual inference, unlike other kinds of inferential cognitions, this integrated object, the general character, is cognized as overlaying the image seen in the preceding, nirvikalpaka perception, the individual character.[69]

This integrated object does not really exist, that is, it does not exist over and above the aggregate of general characteristics (*nāma-jātyādi*), the exclusions of other objects, which make it up.[70] There is no unifying substrate.[71] This object is merely the aggregation of exclusions.

The general characteristics which go into making up this integrated object do not lose their identity when they combine, they provide meaning to, or classification, of the object.[72] If they did not retain their own meaning, every description of any given object would be equivalent. And they are not. This is seen in the analysis of a compound like 'Simsapa-tree' (*śiṁśapā-vṛkṣa*) where the extension of one term ordinarily would be considered to include that of the other. The term (or cognition) 'tree' would add nothing to the meaning of the compound 'Simsapa-tree', were it to lose its own individual meaning. The two would be totally synonymous.[73]

Diṅnāga accounts for the classification of single simple objects. He does not account for more complicated objects and situations, such as a black-horned white cow or a cow being led by a boy. It is difficult to see how he could account for the classification of complicated objects, much less situations.

In the case of a black-horned white cow, objects which are not white, not cows, and not black-horned are excluded. Being black and having horns are not excluded separately. Since they cannot here be uncoupled, being black cannot be referred to by the word 'black'. Thus the horns cannot be classified with other black objects. They cannot both be referred to by the same word 'black'.

Diṅnāga inhered the problem from Bhartṛhari formulated in terms of single objects and came up with a solution geared towards single objects. This we will find has echoes in the responses of others too.

This gives an account of the conditions which must be met for a sound perceptual inference to arise. It is not, however, an account of a procedure which must be followed for the production of a sound perceptual inference, that is how the process leading to a sound perceptual inference should work. Diṅnāga does not give any details as to how a person goes about making a perceptual inference. Diṅnāga does assume a process of inference based on an internal conceptual scheme. But he does not explain just how it works, especially with regard to initial processing of the perceived individual characteristic.

Diṅnāga's sketchy theory about the process of inference and conception is as follows. The meaning in the content of an inferential cognition is in the form of exclusion. This comes about from the process of inferential reasoning, the employment of which requires a scheme of classification as well as a preceding perception. This skill and the conceptual scheme necessary for it are based in memory. And this memory is learned from the interaction with others and the observation of the world.

One learns words and their meanings from the usage of elders. And one observes the relationship of different objects and properties.[74]

Kumārila Bhaṭṭa

Let us now turn to the theory of Kumārila Bhaṭṭa. Kumārila Bhaṭṭa is a Mīmāṁsaka who accepted several of the innovations of Diṅnāga but adapted them to his brand of realism. He claimed that not only the initial, nirvikalpaka stage is perception but also that the following, savikalpaka stage is. Both are the result of a sense's contact with the object and both cognize the external object itself.

Nirvikalpaka perception arises from the senses without the aid of memory. Its content is the pure individual object (*śuddhaṁ vastu*). This object in reality has a dual nature – it has an individual aspect and a universal aspect[75] – and it is apprehended in the nirvikalpaka stage along with its dual aspect.[76] But this apprehension is simply the awareness of the object as it is.[77] The object is not cognized as an individual possessing various universals.

The object is perceived in this stage to have some distinctions; it is somewhat differentiated, but not classified.[78] It has not been compared to or contrasted with other objects. It is thus vague, much like that of an infant who has not yet learn to speak or someone who is unable to speak.[79] The content is thus an individual not seen in relation to any other. But it is a real, external object composed of substances, universals, and qualities.

In the savikalpaka stage the sense-object connection continues and conception by means of recollection occurs. The object is now seen to be qualified by universals, qualities, etc.[80] The individual is seen in terms of commonality (*sāmānya*), or similarity, and difference (*viśeṣa*). It is grouped with some objects and separated from others.[81] It is thus classified.[82]

Thus savikalpaka perception is not merely the awareness of an object as qualified by its attributes but includes some sort of comparison and contrast of the object to other objects. Accordingly the savikalpaka perception of Kumārila Bhaṭṭa is a form of conception. It classifies the object by reaching beyond the object. Kumārila Bhaṭṭa here adopts a method of classification similar to that of Diṅnāga, though he rejects his characterization of it as only exclusion.

Thus Kumārila Bhaṭṭa, like Diṅnāga, formulates the problem as the perception of a single physical object. He does not consider groups of objects or the parts of the object. The relation between the constituents, individual and attributes, is one of co-reference (sāmānādhikaraṇya).

We saw earlier that savikalpaka perception depends on recollection. But the content of this recollection was not specified. It is the content of the recollection which provides the means to classify the object, to group it with similar objects and distinguish it from dissimilar ones. The content of this recollection is the relationship between the object (or one like it) and the word which denotes it. Kumārila Bhaṭṭa does not detail the nature of this relationship, but since it is learned over time by noticing various associations and disassociations between words spoken by elders in the presence of certain object, it probably is not a relationship between a word and a certain recollected object.[83]

The recollection is the means for the discrimination found in savikalpaka perception. Recollection can only arise when the meaning of a word has been learned previously. Thus there can be no discrimination in a savikalpaka perception regarding an object or its attributes whose name was not previously learned.[84]

The more sophisticated the percipient's vocabulary (conceptual scheme) the finer is that percipient's discrimination. The connoisseur of music hears things in a piece that the ordinary listener cannot.[85] Words and their meanings are the percipient's means of discrimination. If the percipient hasn't learned the meanings of certain words, he

cannot make certain distinctions or classifications.[86] He will still see the object, but it will be poor in characteristics seen.

The nirvikalpaka stage is devoid of conception. It provides direct cognitive access to the real world of individuals differentiated by universals. There is thusly awareness of universals as well as the individual in the initial perceptual cognition, though not in the form of individuals as differentiated by universals. There does appear to be, however, the awareness of a certain amount differentiation: the object as distinct from others and perhaps inchoate in basic properties. This awareness of the object leads to a recollection of a relationship of words and meanings which are familiar to the percipient.

The savikalpaka stage is perceptual and conceptual. It is perceptual since it is primarily caused by the senses (and involves no reasoning). It is conceptual because it involves the subjective classification of the object. It not only involves the awareness of the actual object as differentiated, as an individual particularized by its universals, but it also involves the classification or sorting of the object - the grouping of it with similar objects and exclusion of it from dissimilar objects - deriving from the recollection of the relationship of word to its objects. How one sees an object - but not what one sees - is to some extent a product of one's conceptual scheme.

Precedents within the Nyāya Tradition

The Nyāya tradition is not without its own precedents. Vātsyāyana in his *Nyāya-Bhāṣya*, a work predating the *Pramāṇasamuccaya* of Diṅnāga, describes various complex cognitions of identification (*pratyabhijñā*). Identification is a cognition in which the object currently perceived is identified with an object previously seen. It takes the form of "I see that object which I saw earlier." Vātsyāyana analyzes such cognitions as consisting of several cognitions.

Vātsyāyana accepts two kinds of identification (*pratyabhijñā*). One is the cognition of the same object through two different sensory modalities. The contents of two kinds of perception, visual and tactile perception for example, are synthesized into a single cognitive object, or content. The other is the identification of an object which was seen in the past with the object which is being seen in the present. In this case the object is seen by the same sensory modality.

Let us look at the first kind. Each kind of perception is restricted to the cognition of one mode or aspect of an object. Visual perceptions are restricted to the visible aspect of an object; tactile perceptions, to the tanglible aspect, etc.[87] An object may have several of these sensory aspects and can be perceived as having them.[88] One may both see and feel an object as round. This is important to the Naiyāyika since it is one of his realist tenets that one and the same object can be perceived through different senses as well as at different times, by different percipients, etc.[89]

As we have seen the inner faculty (*manas*) is held to have the role of arbiter of attention. The Naiyāyika bases this on the observation that a percipient can attend to only one thing at a time. This is understood to imply that a percipient cannot attend to information about one object presented by two different senses grasping it at the same time. Not only cannot the content of a single perceptual cognition include attributes of two separate sensory modalities, but a percipient cannot attend to the contents of two perceptual cognitions which are generated by two different senses. Thus a subsequent perceptual cognition is necessary to synthesize the content contributed by the different senses.[90] This kind of perception is a form of identification (*pratyabhijñā*) which is presumably produced from a sense-object connection between the object and an external sense and a connection involving a mediating mind.[91]

Thus the self through the mind is able to perceive objects which are apprehended by different senses and identify them as well as carry out other, higher level functions

such as making inferences, cognizing pain and pleasure, and being conscious of other cognitions.[92]

The identification of an object seen earlier with the one seen now is simpler. Since the object in these cases are seen through the same sense modality at both times, they may be identified within a single kind of perception.[93] This form of recognition is a form of perception. According to Vātsyāyana such cognitions of identification (*pratyabhijñā*) have two elements. It is the content of these two elements which is identified. The first is the awareness (= recollection) of the original perception in which the object was previously seen. The second is the direct awareness (= perception) of the object at the time of the cognition of identification.[94]

Thus we see some of the same issues in the *Nyāyabhāṣya* that we saw in Diṅnāga's *Pramāṇasamuccaya* and the works of his predecessors. There are cognitive functions which follow the perception of objects which involve an inner sense-faculty but which are not quite at the level of inferential reasoning. Cognitions of identification are both ordinary and internal perceptions which follow perceptions arising through the five sense-faculties and integrate their contents through the aid of memory. Their existence preceded the discovery of savikalpaka perception.

Udyottakara, the major commentator on the *Nyāya-Bhāṣya* and critic of Diṅnāga, also provides a precedent for the later division of perception into stages.[95] Udyottakara proposed a new form of perception when he modified the Nyāya theory of inference.[96] He claimed that the inferential process consists of a sequence of cognitions, the penultimate of which is a perception in which the content of the intial perception and the subsequent recollection are synthesized. This synthesizing cognition (*parāmarśa*) is a perception of a qualified object (*viśiṣṭārthapratyaksajñāna*).

The inferential process begins when someone perceives an object. Sometime before, the percipient must have perceived the object as related to the object to be inferred and a memory trace regarding this relation was laid down. The current

perception activates the memory trace which in turn produces a recollection of the relation. A synthesizing perception follows these two cognitions and synthesizes their content. In this synthesizing perception the object seen in the first perception is again perceived but this time it is perceived as qualified by the relationship recollected right after the first perception. From this an inferential cognition follows.

Thus in the classical example of smoke emanating from a mountain, the percipient sees the smoke first, remembers that objects which have smoke are pervaded by (that is, are included among) those objects which have fire, then perceives a synthesis consisting of the mountain possessing smoke pervaded by fire, and finally infers that this mountain possesses fire.

Thus Uddyotakara introduces a kind of synthetic perception which apprehends an object which is qualified (*viśiṣṭa*) and which is based on a prior perception and intermediate recollection. This synthetic perception, however, does not involve the classification of its object.

Thus the earlier Naiyāyika accepted cognitions which incorporate several of the elements which characterize nirvikalpaka and savikalpaka cognitions. They acknowledge that in some cases there are perceptions which are the result of a process which is at least partially mental and which involves several cognitions, one of which is an intermediate cognition of recollection and another of which is an initial perception which triggers the process. This resulting judgemental cognition has as its content a qualified object, part of which is derived from the the content of the initial perception and another part of which is derived from that of the recollection.

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[1] This is, in fact, the direction some later Naiyāyikas took when they added an additional kind of sense-object connection to account for the awareness of all instantiations of a given universal during perception.

[2] Conception should also be distinguished form mental determination, the causal determination of the content of a cognition by mind rather than solely or partially by the external object.

[3] There is a long tradition in Buddhism, expressed in various ways by its various schools, that our beliefs about the world are riddled with preconceptions and are to some degree false. This is a part of the background of Diṅnāga and will be further discussed when we discuss Diṅnāga's theory of perception.

[4] There is a strong nominalistic tradition in the Buddhist Mahāyāna Schools. See Richard Hayes, *Diṅnāga on the Interpretation of Signs*, chapter three.

[5] "iyaṁ sā (= vyākaraṇa) mokṣamāṇānām ajihmā rājapaddhatiḥ" *VP* I.16.

[6] Time is, according to Bhartṛhari, a power of of *śabda-tattva* and accounts for various kinds of temporal differentiation. See K.A. Subramania Iyer, *The Vākyapadīya: Some Problems*, pp. 110-124 for a summary of Bhartṛhari's views on time.

[7] See Iyer, pp. 65-67.

[8] See Iyer, pp. 144-5.

[9] See Iyer, pp. 150-3.

[10] *VP* I.15. "na so 'sti pratyayo loke yaḥ śabdānugamād ṛte / anuviddham iva jñānaṁ sarvaṁ śabdena bhāsate"

[11] See K.A. Subramania Iyer, *The Vākyapadīya: Some Problems*, p. 5.

[12] See *Mahābhāṣya* (Keilhorn, second edition), p. 28: "kim asmākaṁ vastu-gatena vicāreṇa? arthas tu asmākaṁ yaḥ śabdenābhidhīyate." ("What is the use of our reflecting on the nature of things? The object for us is what the word presents.") This is cited and translated in Iyer, p. 77. Helaraja says: vaiyākaraṇānāṁ

śabdārtho 'rthaḥ, na vastvartho 'rthaḥ. ("For grammarians, the object is what the words convey and not the external object").

[13] A single integrated object might be expressed by several sentences rather than by just one. But the point is that no isolated part of the content is expressed and that nothing smaller than a sentence can be used to express it.

[14] None of the authors we will look at make a sharp distinction between the expression and comprehension of language. Most don't explicitly discuss the understanding and expression of something seen at all. Thus most of what we will discuss will apply in the relevant and corresponding areas to both ends of communication.

[15] Thus the meaning of a sentence is of two sorts, depending on the perspective: that of fixed character (*sthiti-lakṣaṇa*) and that which is obtained through analysis (*apoddhārapadārtha*). These are two of eight major topics of *Vākyapadīya*.

[16] "vastūpalakṣaṇaṁ yatra sarvanāma prayujyate / dravyam ity ucyate so'rtho bhedyatvena vivakṣitaḥ" *VP* III *Bhūyodravyasamuddeśa* 3, p. 187.

[17] See *VP* III *Jātisamuddeśa* 6, p. 16. "svā jātiḥ prathamam śabdaiḥ sarvair eva_ abhidhīyate / tato 'rtha-jāti-rūpeṣu tadadhyāropakalpanā"

[18] Iyer, *Bhartṛhari*, pp. 239-42.

[19] Radhika Herzberger, *Bhartṛhari and the Buddhists*, p. 28-32.

[20] Bhartṛhari appears to have deliberately proposed a theory which is neutral with respect to the ontological status of physical objects and their own universals.

[21] Which universal is manifested is determined by the fit between the object and the appropriate universal, and this is itself determined by the ranges of application of the universals which are in the percipient's memory.

[22] See *VP* II.135 & 136. "vaktrāny athaiva prakrānto bhinneṣu pratipattṛṣu / svapratyayānukāreṇa śabdārthaḥ pravibhajyate //" and "ekasminn api dṛśye 'rthe darśanaṁ bhidyate pṛthak / kālāntareṇa caiko 'pi taṁ paśyaty anyarthī punaḥ"

[23] Strictly speaking, the significance would be the universal itself; but its applications are derived from it according to its nature and conditions for manifestation.

[24] I am in agreement with Iyer on the section of the *VP* which discusses this. Iyer, p. 381-382. Cf. Herzberger, p. 46-48. Herzberger understands this section to argue that since the relationship of qualification is not constructed out of mental word-universals but rather is given a priori in the cognition, the relationship itself must be ideal, that is, it neither refers to nor is derived from the object. The fact that it is not constructed out of the word-universals but is given, like the universals, does not establish that it is ideal, but rather that it has the same ontological status as the universals. And Bhartṛhari takes a neutral stance regarding these.

[25] Th. Stcherbatsky, *The Central Conception of Buddhism*, p. 18.

[26] A. K. Warder, *Indian Buddhism*, p. viii.

[27] See Edward Conze, *Buddhist Thought in India*, p. 109n. *Mano-vijñāna* also includes the awareness of other mental entities: passion, pleasure, etc.

[28] Amar Singh in his *The Heart of Buddhist Philosophy* on p. 128 provides translations into English by C.D.C. Priestly of extracts from several Vaibhāṣika texts which survive only in Chinese. This is from the *Vijñānakāya* of Devaśarman (T.1539).

[29] "cakṣurvijñānasamaṅgī nīlam vijānāti, no tu nīlam iti arthe arthasaṁjñī, na tu arthe dharmasaṁjñī" in Hattori's reconstruction. (Hattori, *Diṅnāga*, p. 88 and appendix.) Hattori understands 'dharma' to imply "particular *citta-viprayukta-saṁskāra-dharmas*, namely, *nāman*, *pada*, and *vyañjana*," which are specified in the *Dvādaśāra-nayacakra*. He understands '*artha-saṁjñā*' to mean *artha-svarūpa-saṁjñā*. (Hattori, p. 88.)

[30] Singh, p. 128, provides translations into English by C.D.C. Priestly of extracts from several Vaibhāṣika texts which survive only in Chinese. In the *Abhidharmasāra* and the *Pañcavastuvibhāṣā* Dharmatrāta characterizes the content of eye-consciousness as the particular characteristic and that of the mind-consciousness the common characteristic and the particular characteristic.

[31] "āyatanasvalakṣaṇam pratyete svalakṣaṇaviṣayā na dravyasvalakṣaṇam prati" *Abhidharmakośabhāṣya* 1.10. Cited in Singh, p. 79.

[32] A detailed study of perception and its content, *svalakṣaṇa*, in the *Abhidharmakośa* of Diṅnāga's teacher would be useful in understanding several of Diṅnāga's ideas and might uncover others which Diṅnāga embraced and developed.

[33] See M. Nagatomi, "*Mānasa-pratyakṣa*", p. 253.

In *PS* 2.3 and *PSV* thereon Diṅnāga states that the mind cognizes two images in a perceptual inference, an inferential cognition which follows upon the heels of a perceptual cognition. Mental awareness receives the object perceived by excluding, for example, everything which is not blue. See Hayes, p. 233.

[34] See, for example, G. Tucci, *Buddhist Logic before Diṅnāga.*

[35] Warder presumably cites the Sanskrit ms. of the "S'rutamayībhūmi" of the *Yogācārabhūmiśāstra* in addition to the Chinese *Tripiṭaka* on p. 442.

While Warder indexes both 'error' and 'imagining' he conflates '*abhrama*' with '*abhrānti*' and '*vikalpa*' with '*kalpanā*'.

[36] According to Tucci (p. 466) , Asaṅga in his *Mahāyānābhidharma-saṅgīti-śāstra* (= *Abhidharmasamuccaya*?) also defines perception in terms of the absence of error.

[37] Certainly the controversy initiated by Frauwallner over whether or not there are two distinct Vasubandhus, one a Yogacārin and one a Sautrāntika, creates havoc with any accessment regarding the source of Diṅnāga's ideas. In the meantime, we can concentrate on the possible influences of each individual writing ascribed to Vasubandhu. If there are two Vasubandhus, the question of which one wrote which works will also have to be worked out.

[38] Warder, p. 446.

[39] It does seem that the distinction between perceptual cognition and inferential reasoning in terms of the absence or presence, among other things, of imagination or conception (*kalpanā*) may possibly have passed from Asaṅga through Vasubandhu to

Diṅnāga. Of course, it is an idea which may have been widespread at the time, but the evidence for this has been lost.

This lineage can be further supported by noting that it was Asaṅga (in the same *Yogācārabhūmiśāstra*) who was the first, as far as we know, to discard two of the traditional steps in an inferential proof: application (*upanaya*) and conclusion (*nigamana*). (Warder, p. 446.) Vasubandhu (in his *Vādavidhi* and *Vādavidhāna*) also believed that these steps were unnecessary. He went further and reduced the number of steps to three. And these three steps were those ultimately adopted by Diṅnāga.

[40] This is from the *Samayabhedoparacanacakra* (Ch. T. 2031) as translated by Masuda in *Origin and Doctrine of Early Indian Buddhist Schools*, p. 48, as quoted in Singh, p. 128.

[41] Diṅnāga himself refers to the theories of perception of rival systems which include two stages of perception. He states that there are Naiyāyikas who hold that properties (*viśeṣaṇa*) are perceived in the first stage and the substrate (*viśeṣya*) in the second; and there are Vaiśeṣikas who hold that the substrate alone is perceived in the first stage and the properties in the second. See Hattori, *Diṅnāga*, pp. 39-40 & 42-44.

In addition there are references in later literature to a certain Sāṁkhya Vindhyavāsin (ca. 400+) who likely responding to criticisms of an earlier definition - perception is the functioning of the senses of hearing and so forth (*śrotrādivṛttiḥ pratyakṣam*) - amended it to read - perception is the functioning of the senses of hearing and so forth which is without conception (*śrotrādivṛttir avikalpikā pratyakṣam*). What is ordinarily considered to be perception would then be some other kind of cognition. See E.H. Clear, "Iśvarakṛṣṇa's Two-level-perception," pp. 306-7 & 340 and Hattori, *Diṅnāga*, p. 82.

[42] On the one hand, it includes many different sorts of thinking which are commonly considered reasoning, but which aren't usually analyzed as inferential. On the other hand, it includes a kind of inference which combines elements of both inductive inference as well as deductive inference.

[43] I understand Diṅnāga – as opposed to some later commentators – to claim that the content of an inferential cognition is an object qualified or differentiated by general, repeatable entities. These entities, which will later be analyzed as not actually being real, are each denoted by their own word. They are not language themselves.

[44] The object is not an entity distinct from its general attributes. It is rather the result of multiple qualification by general attributes, or more strictly, of additive exclusion.

[45] I understand '*nāma*' to refer to that element of an object which accounts for its individual identity, or in the case of a person, for its personal identity. Each of these general entities is expressible in language, but each is distinct from its expression. This is as we have seen similar to Bhartṛhari's understanding that '*saṁjñā*' (= *nāma*) refers to the relatively permanent and unchanging aspect of an individual.

As we will see when an object is perceived as a certain individual it is singled out by excluding all objects to which it is not identical. Instances (or instantiations) of these objects at all (past?) times are excluded. This implies that occurances of the individual which is not excluded may include those of other times besides the present. Thus this individual includes the summation, or continuum, of these occurances.

[46] The predicables which are conveyed by substance-words such as "horned" or "staff-bearing" are considered to be attributes of the object, rather than just distinct objects. This derives from the grammatical fact that there are substantive-derived adjectives which qualify other substantives. The meaning of such words is an object qualified by another object.

[47] '*Kalpanā*' involves both mental construction and conception. The general object which is inferred is constructed rather than revealed and it is constructed in way which gives it meaning.

[48] The sectarian affiliation of Diṅnāga is still controversial. While I tend to believe that he is a Sautrāntika, his actual affiliation and the implied ontology is not of concern here and will generally be ignored.

[49] See "viṣayo hi ... anya-saṁtānika-vijñāna-sādhāraṇa" *PSV* 1.4 (Hattori, pp. 26 & appendix).

Presumably one and the same person cannot perceive the same individual character with the same sense modality a second time because in the interim the object will have changed, the individual character will have been replaced by another.

[50] See *PSV* 1.4 (Hattori, pp. 26 & 241).

[51] See *PS* and *PSV* 1.2c-3b and *PSV* 1.8 (Hattori, pp. 26 & 241).

[52] It is not the result of any process or mechanism whose function is to provide the means to understand such content.

[53] *PS* 2.2 (Hayes, p. 232).

[54] Hattori in one place translates "*svalakṣaṇa*" as the "particular individuality" of an object. Hattori, *Diṅnāga*, p. 80, note 1.14. He usually, however, translates it as the "particular". Stcherbatsky in his *Buddhist Logic* translates it as "the unique particular," putting perhaps too much emphasis on the uniqueness of it.

[55] Diṅnāga admits that the object has many properties, not all of which can be cognized by means of an inferential mark. Only those which have a relation are made known in an inference. *PS* 2.13 & 2.18 (Hayes, pp. 244 & 247).

[56] This is distinct from Diṅnāga's assertion (*PS* 1.1 & 5.2) that the content (*viṣaya*) of each of the two stages are necessarily different.

[57] Diṅnāga, unlike Dharmakīrti, does not attribute, at least not explicitly, to the individual character the power to produce successful action (*artha-kriyā-śakti*). See Hayes, p.15.

[58] Dharmakīrti demurred on this, since he accepted erroneous perceptual cognitions which are caused by defective sense organs. He thus resurrected a definition of

perception proposed earlier by Asaṅga which included the condition that a perception cannot be erroneous. See above.

59 See *PS* 2.3 ((Hayes, p. 233).

Diṅnāga appears to distinguish erroneous cognition, *saṁvṛtti-saj-jñāna*, and *anumāṇa* in *PS* & *PSV* 1.7 (Hattori, *Diṅnāga*, pp. 28 & 241). *Saṁvṛtti-saj-jñāna* is glossed as a particular kind of (ultimately) erroneous cognition.

60 See *PS* 2.13 and 2.18 (Hayes, p. 246).

61 The inclusion of one class of objects within another is determined by whether or not the inferential mark is proper. Diṅnāga stipulates three conditions for a proper inferential mark (*liṅga*). If these three conditions are met, the inference is sound. The first condition is that the inferential mark must actually occur in, or be possessed by, the object under consideration, the subject (*pakṣa*). The second is that the inferential mark must occur in at least one object which possesses the property to be inferred (*sādhya-dharma*). And the third is that the inferential mark must not occur in any object which does not possess the property to be inferred. Smoke must, for example, actually occur on the mountain being observed and where the fire is to be inferred. It must also occur in at least one other place besides this mountain where there is fire. But it must not occur in any place where there is no fire.

62 Diṅnāga claims that what is ordinarily considered to be perception, what we are calling perceptual inference, is the result of an inferential process beginning with a nirvikalpaka perception, but nowhere does he describe this process. There are *prima facie* problems with this account. One appears especially difficult, but is not addressed by Diṅnāga. According to Diṅnāga an inferential mark (*liṅga*) must occur in at least one object (other than the object in question) which possesses the property to be inferred (*sādhya-dharma*), but an individual character (or part of one) cannot recur in another object and thus ought not be able to serve as an inferential mark. Kumārila Bhaṭṭa takes pains to assure his critics that the perception of an inferential mark is savikalpaka. He

appears to be motivated by his desire to avoid the problem that something which has never been seen to occur with the property to be inferred, cannot serve as an inferential mark for it.

[63] There is a question as to what the other is being excluded from. In the case of an inferential cognition which follows a perceptual cognition it might be supposed that the inferential cognition is operating somehow on the object of the perceptual cognition. The inferential cognition might classify by excluding what is seen in the previous perceptual cognition. And according to *PS* 2.3 (Hayes, p. 233) the image of the content of a perceptual cognition may still be present when the following inferential cognition arises. But there is also the image of the inferential cognition. There are two images. The inferential image is not a restricted portion of the perceptual image.

But in the case of an inferential cognition which is language based, there is no such perceptual image. There is only the general image of the integral object. (I am assuming that contents of different kinds of inferential cognitions are basically of the same sort.) It is the result of cumulative exclusion. But if we look at it temporally, what is the original thing from which the other is excluded?

There should be some sort of positive ground which can be divided up by exclusion whether it be the universe, all particulars, or existence. The final, integral object, the result of cumulative exclusion, would be a restricted portion of this. The image of this integral object would be general and not (totally?) particular, whatever the identity of the ground. See Masaaki Hattori, "*Apoha* and *Pratibhā*," pp. 68-69, for a discussion of what he considers to be Sāntarakṣita's revision of the nature of this object. If it is a revision, it does seem defensible to me.

[64] If the dissimilarity is with respect to the present object alone, then how can the meaning, the extension, of the concept be repeatable? If it isn't, the ground for inference and language would be severely eroded. A possible answer to this would be that each of the "similar" objects could trigger what would in effect be the same class

of dissimilar or different objects. Thus the same concept would apply to this class, even though the condition of dissimilarity or difference is put in terms of difference with the present object rather than a class of similar objects. Thus the content of the concept is what remains after the exclusion of objects different from the present object.

65 This interpretation – which allows seeing things as dissimilar (*bheda-grahaṇa*), but not seeing things as similar (*abheda-grahaṇa*) – may be a somewhat later understanding of Diṅnāga's notion of apoha, but I think it is close in spirit.

66 *PS* 2.16.0 and 2.16.1

67 See *PS* 2.13 (Hayes, p. 244).

68 See *PS* 2.14 (Hayes, p. 245).

69 *PS* 5.3 (Hayes, p. 233).

70 And as we have seen the individual universals do not ultimately exist either.

71 *PS* 5.17 (Hayes, p. 282).

72 See *PS* 5.17 (Hayes, p. 283).

73 This is Diṅnāga's version of the problem of sense and reference so troublesome in Western philosophy. Diṅnāga would understand two different descriptions of the same group of objects (reference) to have different meanings (sense).

74 Diṅnāga does not explicitly mention the notion of noting and learning from actions which are successful (*artha-kriyā*). This notion does not appear to play a role in his theory as the means of validating cognitions.

75 The Mīmāṁsaka, unlike the Naiyāyika, holds that class properties (*jāti*) and individuals (*vyakti*) are not totally distinct from one another. Class properties define the objects in which they inhere, but they do not exist over and above them. Individuals require universals to characterize them. There is a mutual relationship between them. The individual belongs to the class property and the class property, to the individual. The class property cannot exist without individuals (in which to be instantiated), and an individual cannot exist without any class properties (to define it). *SV Akṛti* ks. 9-10.

[76] "nirvikalpaka-bodhe 'pi dvyātmakasyāpi vastunaḥ / grahaṇaṁ lakṣaṇākhyeyaṁ jñātrā śuddhaṁ tu gṛhyate" *SV Pratyakṣa* k. 118.

Cf. Diṅnāga's *PS* 1.5. "dharmiṇo 'nekarūpasya netrindriyāt sarvathā gatiḥ / svasaṁvedyam anirdeśyaṁ rūpam indriya-gocaraḥ."

[77] Sucārita Miśra understands this differently. His interpretation is that it is the generality and particularity of the object which are each apprehended in themselves. "śuddhaṁ gṛhyata ity etad eva prapañcayati - na hīti / ayam abhiprāyaḥ – svarūpamātreṇa sāmānyaviśeṣau nirvikalpakena gṛhyete" *SVK*, p. 253. The fact that constituents of the object are perceived in themselves is more in line with the view of Vācaspati Miśra, and in fact Sucārita Miśra is posterior to Vācaspati Miśra. Vācaspati Miśra, however, would prefer the interpretation that it is the substrate and its attributes which are perceived in themselves.

Maṇḍana Miśra criticises a position which very well may be that of Kumārila. He points out that if what is seen is to have heterogenous nature, it must be seen to have it. Whether or not the external object itself is heterogenous is another matter. See Allen Thrasher, "Maṇḍana Miśra's Theory of Vikalpa," p. 153. This criticism might also apply to Diṅnāga's theory as well.

[78] Its form or appearance is perceived as distinct from other substance substrates. "pratidravyaṁ bhinna-rūpopalambhanāt" *SV Pratyakṣa* k. 117, p. 252.

[79] "asti hy ālocanājñānaṁ prathamaṁ nirvikalpakam / bālamūkādi-vijñāna-sadṛśaṁ śuddha-vastu-jam //" *SV Pratyakṣa* k. 112, p. 248.

[80] "tataḥ paraṁ punar vastu dharmair jātyādibhir yayā / buddhyā_avasīyate sā_api pratyakṣatvena sammatā //" and "tena_indriyārtha-sambandhe vidyamāne smarann api / vikalayan svadharmeṇa vastu-pratyakṣavān naraḥ //" *SV Pratyakṣa* k. 120 and 123, pp. 254-5.

81 See Kumārila Bhaṭṭa's description of nirvikalpaka perception before the intervention of memory. "na hi asādhāraṇatvena paravyāvṛttyakalpanāt / viśeṣāvagamāklpteḥ sāmānyam iti nāpi tat" *SV Pratyakṣa* k. 119, pp. 243-4. Cf. *VS* I.2.4 "bhāvaḥ 'nuvṛtter eva hetutvāt sāmānyam eva" and *Praśastapādabhāṣya*, p. 677, "aparaṁ (sāmānyaṁ) dravyatva-guṇatva-karmatvādy anuvṛtti-vyāvṛtti-hetutvāt sāmānyaṁ viśeṣaś ca bhavati."

82 Kumārila Bhaṭṭa seems to equate, or at least tightly link, the cognition of an object as qualified with its attributes with the cognition of similarities and dissimilarities of the object to other objects. These are in turn explained as the object being grouped together with and separated from other objects. Both of these follow Diṅnāga's theory.

83 *SV* IV sec. 16 ks. 138-142.

84 Though the perception of infants and those who are incapable of specch is likened to nirvikalpaka perception, it must involve some sort of discrimination, otherwise they would be completely unable to function. It would thus be a form of rudimentary form of conception. This capacity would presumably be attributed to an inheritance from a previous life.

85 *SV* IV ks. 239-240.

86 *SV* IV ks. 244-46.

87 *NBh* III.1.1. "indriyaṁ khalu svasvaviṣayagrahaṇam ananyakartṛkaṁ pratisandhātum arhati nendriyāntarasya viṣayāntaragrahaṇam iti."

88 *NS* III.1.1 "darśanasparśanābhyām ekārthagrahaṇāt."

89 See *NVTT*, pp. 17.16-20.9.

90 *NBh* 3.1.1. "darśena kaścid artho gṛhītaḥ sparśanenāpi so 'rtho gṛhyate yam aham adrākṣaṁ cakṣuṣā taṁ sparśenāpi spṛśāmīti, yaṁ cāspārkṣaṁ sparśanena taṁ cakṣuṣā paśyāmīti / ekaviṣayau cemau pratyayāv ekakartṛkau pratisandhīyete ..."

[91] This is unclear. Vātsyāyana does not explain how the mind can both fix attention to one sense and "pass along" its content and simultaneously activate memory traces which provide the past content.

[92] *NBh* 3.1.3.

[93] *NBh* III.1.1. "indriyaṁ khalu svasvaviṣayagrahaṇam ananyakartṛkaṁ pratisandhātum arhati" and *NV* thereon.

[94] According to Vātsyāyana three distinct perceptual cognitions are assumed. The first is the original perception of the object (which fostered the laying down of a memory trace). The second is the recollection of this earlier perception. And the third is the current perception of the object. See *NBh*, III.1.15. "adrākṣam amum arthaṁ yam evaitarhi paśyāmi / adrākṣam iti darśanaṁ darśanasaṁvic ca, na khalv asaṁvidite sve darśane syād etad adrākṣam iti / te khalv ete dve jñāne, yam evaitarhi paśyāmīti tṛtīyaṁ jñānam ..."

[95] Oberhammer believes that Uddyotakara borrowed the idea of *liṅgaparāmarśa*. See Potter, *Indian Metaphysics*, p. 183.

[96] *NV* I.1.4.

5
Vācaspati Miśra's Theory of Perception

Vācaspati Miśra updated the Nyāya theory of perception by incorporating several concepts and distinctions developed by his predecessors. His importance lay less in innovation than in the synthesis of these newer ideas with each other and with the Nyāya tradition as handed down to him.

It is, however, an incomplete synthesis, since Vācaspati Miśra did not usually disperse these changes throughout his text or his account of the system as a whole. He thus neglected to adjust other related areas and to address the implications of these changes. Most alterations and additions are discussed only in the area where they are most relevant. He did not, for example, use the division between nirvikalpaka and savikalpaka perceptual cognitions to clarify the genesis of error, though he did briefly discuss its relevance to error in the section giving the definition of perception, where the division is discussed.

Vācaspati Miśra divided the perceptual process into several stages: two stages of perception linked together by a stage of recollection. These two stages of perception are nirvikalpaka perception and savikalpaka perception.[1] Before we look at either stage in any detail let us first look at an overview.

Nirvikalpaka is sensory, or preconceptual. It derives solely from the object connected to the sense. Savikalpaka perception is conceptual. And it derives from the object, but also from the recollections of the object. A percipient when looking at a cow, for example, will be aware of the cow in the nirvikalpaka stage, but will only

become aware that it is a cow in the savikalpaka stage. The content of the first cannot be expressed, while that of the second can be expressed in a sentence such as "this is a cow".[2]

Many of the features of the earlier Naiyāyika notion of perception have been distributed by Vācaspati Miśra among the two kinds of perceptual cognition. The savikalpaka stage is what is ordinarily considered to be perception and is closest to the notion of perception of the earlier Naiyāyikas. It is the cognition of which we are conscious when we think and talk about perception.

The nirvikalpaka stage is a postulation. It is unobservable, being beyond the reach of introspective consciousness. It is, however, generated by the causal complex which the earlier Naiyāyika assigned to the generation of perception in general. The savikalpaka stage is generated by the same complex plus a cognition of recollection. This expansion of the causes of perception is not totally new with Vācaspati Miśra. We saw earlier that Uddyotakara acknowledged the presence of memory traces in the causal complex of perception, but did not explore their role.

Vācaspati Miśra describes the process of perception as a sequence of causes and effects beginning with the initial sense-object connection and ending with a savikalpaka perception. Within this sequence there are three cognitions: a nirvikalpaka perception, a recollection, and a savikalpaka perception.

When the causal complex – the sense-object connection and other, ancillary causes – comes together, a nirvikalpaka perceptual cognition arises. This cognition activates a memory trace which in turn generates a cognition of recollection. The content of this intermediate stage consists of a prior occurrence of the substance-particular substrate and its prior attributes and perhaps also prior instantiations of its present attributes. The past occurrence (or the prior instantiation) is the object when its name was originally learned by the percipient. This recollection along with the continuing causal complex

goes on to generate the savikalpaka perception of the object.[3] It also generates a recollection of the applicable name or names.

In the nirvikalpaka stage the percipient is simply aware of the object. He does not recognize or classify the object. He is aware simply of the substrate with its attributes (*jātyādimad-artha*), but not of the substrate as differentiated by the attributes (*jātyādibhir viśiṣṭārtha*). According to Vācaspati Miśra this means that the percipient is aware of the components which make up the object in themselves, but not as differentiating one another. This does not mean that he is aware of them as distinct individuals; he does not recognize these components. The percipient is, for example, aware both of the universal cowness (*gotva*) and of the substance-particular cow (*go*) stripped of all differentiating attributes. But he recognizes neither.

In the savikalpaka stage the percipient comprehends what the object is, he recognizes or classifies it as something. He is aware of a single composite object. He is aware of the substrate as it is differentiated by its numerous attributes – universals, quality-, and movement-particulars (*jātyādiviśiṣṭārtha*).

The content of this savikalpaka stage includes those components which were previously perceived in the nirvikalpaka stage.[4] And it also includes some others. It also includes those components which were just remembered in the intermediate stage of recollection. These newly perceived components include a past occurrence of the substrate along with the attributes it possessed at the time it was perceived and perhaps past instantiations of the present attributes.

These two groups of components are seen by the percipient to properly differentiate one another – the defining characteristic of savikalpaka perception. The substrate is inhered in by the set of components belonging to its occurrence as the present object and by the set of components belonging to its occurrence as a past object. Thus the cognition of this single composite object in the savikalpaka stage of perception is a conceptual judgment.

Nirvikalpaka perception

Let us now take a look at some aspects of nirvikalpaka perception in more detail. The nirvikalpaka stage determines which mental traces are activated. It is not, however, a form of recognition.[5] The awareness in a nirvikalpaka perception is pure awareness.[6] It does not contain an element of recognition. It does not differ in nature from the awareness of conceptual perception, the savikalpaka stage of perception. Savikalpaka perception too is pure awareness. The two differ only in content and it is in the content where conception and recognition lie.

Nirvikalpaka perception does discriminate causally. That is, the nature of the recollection which follows from a nirvikalpaka perception depends on the nature of that nirvikalpaka perception. But it is the nature of the content and not that of the awareness which determines the nature of the content of the recollection. This is a causal relationship, not a conceptual one. The awareness does not have to recognize the nature of the content.

The content of nirvikalpaka perception is similar to that of the perception as understood by the earlier Naiyāyikas, minus the differentiating relationships. That is, it is the object in itself. Thus in nirvikalpaka perception one sees the physical object which is connected with the sense faculty and only that physical object. One does not see any of the other causes of this stage of perception nor does one see any other physical objects besides the one connected with the sense at this time. Any portion of the physical object which is not connected with the sense is not amenable to being cognized in nirvikalpaka perception. Thus the backside of objects not transparent are not perceptible. Nor are the insides, obstructed surfaces, etc.[7] But not everything which is connected with the sense is itself capable of being cognized. Atoms, for example, which make up the substance-particular of the physical object are not perceptible, as the omnipresent aether is likewise not perceptible.[8] Thus everything which appears in the

content of a nirvikalpaka perception is connected with the sense. This is consistent with the realist dictum that we perceive only that which is connected with our senses. This is not the case we will find out with content of a savikalpaka perception.

The content of any particular perception does not usually include everything which is ultimately perceptible. Some selection of the components occurs. Most of it, at the nirvikalpaka stage. If everything perceptible which is connected with the sense appears in the content, what does not appear? How is it determined what will be perceived and what will not? If, for example, a tree is perceived nearby and at a distance, what is responsible for the differences in the contents of the two perceptions, between a detailed appearance of a tree and a dark indistinct vertical form.

Vācaspati Miśra does not directly address this problem of content selection, though he had the opportunity to do so when he answered an objection of an opponent. The opponent argued that if certain universals are an essential part of an object, they should perceived when it is. Thus when an object, such as a distant tree, is perceived as possessing a universal, such as existence, the other universals should be perceived as well[9]

Vācaspati Miśra replied that the various universals which inhere in a substance-particular are not themselves part of the nature of the substance-particular. Thus when the substance-particular is perceived, not all of the universals must be perceived too.[10] But he does not explain why some are and some aren't. Since the example he discusses is the perception of a distant tree and the selection is thus a function of distance, we may presume that the selection of what is to be perceived and what is not depends on the sense-object connection, as it was for the earlier Naiyāyika.

If we assume that the only difference between the contents of the nirvikalpaka and savikalpaka stages is the web of differentiating relationships, then the difference between two perceptions of the same object will already occur in the content of the nirvikalpaka stages. And at this stage there is no influence of any internal, mental

processes. So the difference must lie in the difference between the sense-object connections.

The reason then for the different contents of two perceptions - one of a nearby tree and one of a distant tree - lies in the difference in the connections. A nearby connection will be a better connection and provide a more detail content. Thus some selection of the mix of the components occurs at the nirvikalpaka stage.

The causal conditions producing this stage of perception are the same as those which were earlier considered to produce perception when it was not considered to be divided into stages. It does not, however, include one condition which was later considered to play a significant role in the production of perception, memory. Out of this complex of conditions, certain conditions determine the content of the nirvikalpaka stage. The content then consists in just those conditions which determine the content. But the content of this stage, what is now called nirvikalpaka perception, is not the same as what was earlier considered to be perception. Thus although the conditions are the same, the nature of the result has changed.

Nirvikalpaka perception is often understood as being a vague or more general version of savikalpaka perception. The content of the nirvikalpaka stage, however, is not merely more vague than that of the savikalpaka stage. Nor is it a selection or subset of the more general features of the object, that is, partially differentiated. According to the Vācaspati Miśra there is no differentiation of the object discerned at all. The object is not cognized in even the most vague or general way. One does not have the cognition of "something" or "this (present) thing." One does not see a substrate differentiated by being-something (*kiṁcittā*) or being-present (*idaṁtā*). There is no differentiation whatsoever.

When someone does have a very vague or general perception he is aware of instantiations of more general universals. This is a savikalpaka perception. If he also wonders what the object is, he would have a indefinite cognition (*saṁśaya*) rather than a

perception. The vague, undefined object which is the content of this cognition would, as we have seen, consist of alternate sets of defining attributes.[11]

The Content of Nirvikalpaka Perception

The Naiyāyika as we saw earlier analyzes the world into seven kinds or categories of ontological entities. Everything in the world from rocks to rainbows is made out of only these seven kinds. Thus a specific physical object consists in a specific arrangement or configuration of these seven kinds. While all of these except ultimate differentiators (*atyanta-viśeṣa*) were considered to be perceptible according to the earlier Naiyāyikas, it does not follow that they are perceived at the ground floor, at the nirvikalpaka stage.

The components perceived in the nirvikalpaka stage are not explicitly listed by Vācaspati Miśra. He does mention the ontological entities which correlate to the five kinds of predicates (traditionally associated with savikalpaka perception) and which are cognized as undifferentiated in nirvikalpaka perceptions.[12] These include four of seven basic ontological entities: substance-particulars, quality-particulars, movement-particulars, and universals. The other entities are not discussed. Let us take a brief look at these first.

The components which can be perceived in the nirvikalpaka stage cannot include ultimate differentiators (*atyanta-viśeṣa*), since the substance-particulars which they differentiate, atoms, are themselves imperceptible.[13]

The ontological category of absence was not originally in the Nyāya Sūtras but was later added. It is quite useful in the Naiyāyika's realistic logic, linguistics, and epistemology.[14] Absence is perceptible as well as inferable according to Vācaspati Miśra.[15] Thus we may assume that it forms part of the content of savikalpaka perceptions. But there is no mention of whether or not it forms part of the content of nirvikalpaka perceptions. It has been shown that there must be a connection between it

and a sense by means of a qualifying relationship (*viśeṣa-viśeṣya-bhāva*) in perceptions of absence, since all perceived objects must be connected to a sense.

Vācaspati Miśra acknowledges that the perception of the absence of an object, the absence of a pot (*ghaṭābhāva*), for instance, requires an intermediate recollection of a counter-positive (*pratiyogin*) of the absence, the presence of a pot. He compares this recollection to the recollection required for savikalpaka perception.[16] But he does not equate them nor does he affirm a prior nirvikalpaka perception of the absence. Suppose that this intermediate stage of recollection is a form of that necessary for a savikalpaka perception. The percipient would then recollect a pot and the ground. And he would have perceived them both in the preceding nirvikalpaka perception. But this does not tell us whether the absence was perceived in the nirvikalpaka stage.

Thus the absence of a pot is connected with a sense and this presumably activates various memory traces leading to the recollection of the pot. Perhaps the continuing sense-object connection then translates this into the savikalpaka perception of the absence of the pot.

Absence has no essential nature (*svarūpa*) of its own.[17] And it is not a particular. Just what would be perceived in the nirvikalpaka stage, if unqualified absence were here perceived, is unclear.

Thus it is uncertain whether absence is one of the components in the content of the nirvikalpaka stage of perception. Vācaspati Miśra doesn't say. He is primarily concerned with discussing the perception of physical objects, rather than more complex states of affairs.[18]

Inherence (*samavāya*) is also perceptible according to the Naiyāyika and is connected to a sense in cases of perception.[19] It is seen when the composite physical object is seen in the savikalpaka stage, for it is a component of this physical object. But again there is no discussion by Vācaspati Miśra as to whether or not it is also seen earlier in the nirvikalpaka stage, where nothing is seen to inhere in anything else.

Since there is no differentiation in the nirvikalpaka stage, it seems likely that inherence is not seen in this stage. For instances of inherence are instances of differentiation. Moreover individual cases of inherence are defined, or determined, by their relata, not by a particular instance of inherence. That is, when cowness inheres in a substance, the universal cowness and the substance-particular determine the nature of the combination.[20] But such definition can not occur in a nirvikalpaka cognition. If inherence is present in a general, unspecific form, it would have no potential informational value in that it would not be differentiated within a cognition or between cognitions and would occur identically in all nirvikalpaka cognitions.

Thus while the ontological entity inherence may be present in the content of virtually all nirvikalpaka perceptions, it does not perform its function as the glue of predication.

When the thesis that cognition possesses no form of its own (*nirākāra*) was first formulated there was no notion of nirvikalpaka perception. Thus as far as the early Naiyāyikas were concerned the contents of cognitions were always of external, composite objects rather than isolated component entities. While universals are eternal and omnipresent and thus exist separate from their instantiations, they become perceptible, at least for ordinary folks, only when they are instantiated in a particular. Only then were they able to be connected to a sense.

Thus universals cannot be observed as separate from their instantiations, as particulars cannot be observed separate from their attendant universals.[21] Thus one sees only composite objects or portions of composite objects stitched together, as in cases of error. Once it is admitted, however, that one can perceive the components of composite objects in themselves, the problem arises as to whether or not one can perceive universals and particulars in themselves and whether or not in this case one any longer sees a particular physical object, or any physical object at all.[22]

There is an ancient debate in India as to whether or not the properties (*dharma*), or attributes, and the locus (*dharmin*), or substance, of a physical object are distinct and real.[23]

The realists hold the view that both are distinct, real, and perceptible. The Naiyāyika believes that they are thoroughly distinct, in existence as well as nature, though they are inseparable once linked. For the Naiyāyikas substances exist bare for a split second before they take on even their most essential attributes and universals being eternal and all-pervading exist on their own when uninstantiated. The Bhaṭṭa Mīmāṁsakas, as we saw earlier, believe they are aspects of the same individual. They are distinct in nature though they do not exist without each other. A substance cannot exist without attributes and universals exist only in their instantiations.

The non-realists tended to blur the distinction between the properties and the locus. Different schools favored one or the other as better capturing reality. Some of the non-realists, such as the Vedāntists, held that only the ultimate locus, *Brahman*, is real and actually perceptible and properties are only superimpositions on it. Others, such as Diṅnāga, held that only the individual characters (*svalakṣaṇa*) of objects is ultimately real. Its repeatable properties and their locus are constructions onto it and unreal.

The debate concerned also what is ultimately perceived and what is mentally created afterwards. This debate was recast when various schools acknowledged the existence of conception and incorporated nirvikalpaka perceptual cognitions and savikalpaka perceptual or perception-like cognitions into their theories of perception. Thus a controversy arose over what is actually cognized in the initial, nirvikalpaka perception. Are the attributes (universals, quality-particulars, etc.) of an object here cognized? Is the substrate? Are both of them?

According to the Naiyāyika universals (*jāti*) are among the components cognized in the nirvikalpaka stage.[24] This is a major bone of contention between the Naiyāyikas and opponents such as the Buddhist followers of Diṅnāga. These Buddhists claim that it is

only the individual character (*svalakṣaṇa*) which is truly real and perceptible. A property which is considered to be common to several objects and which can be repeatedly cognized goes beyond any single individual. It is a product of the imagination, and not truly real. As a consequence it is not perceptible. They also claim that if a content of a cognition includes universals then the cognition cannot be perceptual.[25]

The Naiyāyika claims that the same universal can be cognized numerous times. They are real and persist independently of being cognized.[26] Thus they are capable of being perceived repeatedly. Thus a cognition can both involve universal and be perceptual.

The nirvikalpaka stage of perception is not reserved for the cognition of unique characteristics alone. All of the components of the external physical object - including universals - which are connected to the sense and which are capable of being perceived are perceived in the nirvikalpaka stage. Thus universals are cognized at the ground floor. Their cognition is not derived, mediated, or constructed. It is important for the realist that reals be capable of being perceived immediately and repeatedly and are thus not constructed.

Hattori has asserted that in the theory of Vācaspati Miśra the content of nirvikalpaka perception consists solely of the attributes of the object and not of the substrate, the substance-particular.[27] He supports this by examining the views of other authors predating Vācaspati Miśra who are not Naiyāyikas, but hold a similar view. He also notes that Diṅnāga is familiar with the view of an earlier Naiyāyika who espouses a position that might be a precursor to Vācaspati Miśra's. This earlier Naiyāyika also holds that there are two stages of perception. The content of the first stage consists solely in the attributes (*dharma*) and not the substrate (*dharmin*). Hattori then surmises that Vācaspati Miśra's theory is essentially the same.[28]

This alternative interpretation of Vācaspati Miśra's position by Hattori is motivated primarily by an important passage in the *NVTT* where Vācaspati Miśra claims that

nirvikalpaka perception is included in the definition of perception of the *Nyāya Sūtras* (I.1.4). He claims that the word '*avyapadeśyam*' refers to nirvikalpaka perception. He shows how this word refers to nirvikalpaka perception by explaining its meaning. In the process he gives a characterization of nirvikalpaka perception, one constrained by this device.

The passage in which Vācaspati Miśra characterizes the content of nirvikalpaka perceptual cognition is ambiguous. Whether or not he excludes substance-particulars as components in the content is unclear. While he claims in the first third of the sentence that there is no object of differentiation in the content of nirvikalpaka stage of perception, he does not explicitly claim that there is no substance-particular.

The passage runs: "That (cognition) in which there is no object of differentiation (*vyapadeśya* = *viśeṣya*[29]) fathoms (cognize) the essential nature (the object's) universals and forth, but does not fathom a differentiating relationship of the universals and so forth one with another."[30]

Hattori understands the passage to read something like the following: "That cognition in which there is no substance-particular substrate fathoms the essential nature of (the differentiating attributes of the object), the universals and so forth, but does not fathom a differentiating relationship of these universals and so forth with (a substance-particular substrate)."

I prefer: "That (cognition) in which there is no object of differentiation fathoms the (object's) universals and so forth in themselves, but does not fathom a differentiating relationship of the universals and so forth with one another."

The first third of this sentence is concerned with providing an explanation of the term '*avyapadeśya*'. It states that that (cognition) in (whose content) there is no *vyapadeśya* (that is, something which is the object of differentiation) is a *avyapadeśya* cognition, (that is, a nirvikalpaka cognition). While it does exclude any component

which is functioning as an object of differentiation, it does not explicitly exclude any component which is a substance-particular.

Every instance of differentiation by attributes (or predicables) requires the presence of a substance-particular (*dravya*), for there can be no differentiator without something differentiated just as there can be nothing differentiated without a differentiator.[31] Thus if differentiation is to be denied, there must be a substance-particular whose differentiation is denied.[32]

This substance-particular must be either found among the group of components such as universals and so forth (*jātyādi*) or else it must be supplied.

The compound 'universals and the other components' (*jātyādi*) is the prime source of ambiguity. In the NVTT this compound generally can be expanded to 'universals, quality-particulars, and movement-particulars, and perhaps also substance-particulars.[33] It is frequently found with the possessive suffix *matup* (*-mat*) and refers to those attributes (universals and quality- and movement particulars) which qualify the object (*artha* or *vastu*), or substance-particular substrate (*dravya*). It does not include the equivalent of the individual attribute (*nāma*) of Diṅnāga, because Vācaspati Miśra does not consider it to be an attribute, but considers it instead to be the substrate.[34]

If the substance-particular which will be seen to be the substrate in the savikalpaka stage is cognized in the nirvikalpaka stage, we would expect to find a reference to in this compound, if it is not to be supplied. We might expect to find it in '*jātyādyartha-svarūpāvagāhi*' or '*jātyādidravya-svarūpāvagāhi*'. But since the substance-particular (*dravya* = *artha* here) is already represented within the expansion of '*jātyādi*' it might be elided with no loss of meaning, even though the full form would be clearer.

Vācaspati Miśra accepts Diṅnāga's first predicable, the attribute of individuality (*nāma*), but understands it to be a substance-particular which functions as a substrate. And he accepts Diṅnāga's fifth predicable as well, a substance which qualifies another, though he understands it to be a substance-particular which is seen to function as an

attribute. Both are substance-particulars, even though they are seen to function in the different ways. And so both would be referred to by the word 'substance-particular' (*dravya*).

If a substance-particular which would become the substrate in a savikalpaka cognition, but whose differentiation is here denied, is considered to be referred to by the compound 'universals and other components' in the last third of the sentence, then it is likely that the same substance-particular would be referred to by the same compound in the second third of the sentence. In this case, a substance-particular which will later be perceived as a substrate in the savikalpaka stage would be counted among the components perceived in the content of a nirvikalpaka perception.

If, however, the compound 'universals and other components' does not refer to a substance-particular, then the word 'with a substance-particular' must be supplied in the last third of the sentence. The differentiating relationship would then be between the substance-particular referred to by the supplied word and the attributes referred to by the compound. In this case, the second third of the sentence could mean that the universals and other components – including substance-particulars which are later seen to be *attributes* – are grasped, and that no substance-particular which would later be seen to be the substrate is grasped.

This interpretation of the last third of the sentence, however, would be inconsistent with the ordinary meaning of the word '*mithas*' found it. The adverb '*mithas*' generally means 'mutually' or 'with one another' and does not usually govern a word, here supposedly elided, and mean 'with or by (this)'.[35]

If we understand the compound '*jātyādi*' to refer to substance-particulars – both those that will later be perceived as a substrate and as attributes – as well as the universals, quality-particulars, movement-particulars, then the sentence does not deny that the substance-particular which will be perceived in the savikalpaka stage as a substrate is perceived in itself in the nirvikalpaka stage.

In order to support the interpretation that the substance-particular which is later perceived to be the substrate is not perceived in the nirvikalpaka state, either the compound '*jātyādi*' must be used in two different senses in its two occurances, or else the adverb '*mithas*' must be used superfluously or unidiomatically.

Thus we can provide an interpretation of the sentence in question which is consistent with the position that substance-particular substrates are perceived in the nirvikalpaka stage. We shall now turn to other passages and the theory as a whole to seek further substantiation that this position belongs to Vācaspati Miśra.

There are several other passages which indicate that the substance-particular is perceived in the nirvikalpaka stage, even if it is not taken there as the substrate.

For example, in one passage where Vācaspati Miśra in support of his own position gives the position of a friendly school with which he presumably agrees he characterizes nirvikalpaka perception as cognizing (*vedana*) an object (*vastu*) which possesses its universals (*jātimat*). In the savikalpaka stage the object will be seen as the substrate (*dravya* = *dharmin*) and the universals as its attributes (*viśeṣaṇa* = *dharma*).[36]

In another passage where he answers the charge that the senses can't think he states that it is the self (*ātman*) that conceives, but only after it has directly perceived (*ālocya*) the object which is possessed of its attributes - that is, the object, or substrate, which is in possession of its universals, quality-particular, etc.[37] Direct perception here is a synonym for nirvikalpaka perception. [38]

In another passage, Vācaspati Miśra in the course of refuting the position that two objects which are arranged in a differentiating relationship need to stand in a servicing relationship and the substance-particular and its attributes do not reiterates that they do not in fact exist in a servicing relationship even though they do exist in a differentiating relationship. Vācaspati Miśra states here that the substance-particular which serves as the substrate (*rūpin* = *dharmin*) in the real world is not perceived as such in the

nirvikalpaka stage, but is perceived in its own form. It is perceived as the substrate when it is perceived in the savikalpaka stage.[39]

The fact that the substrate to be *(dharmin)* is cognized in the nirvikalpaka stage can be further supported. The substrate is cognized in the nirvikalpaka stage of a different kind cognition, the indefinite cognition. In indefinite cognitions which are perception-like one first cognizes the object, or substrate, in a nirvikalpaka perception and then mentally superimposes two contradictory sets of attributes onto this substrate. In an example of an indefinite cognition *(saṁśīti = saṁśaya)* Vācaspati Miśra explicitly says that the observer first perceives directly (= perceives in a nirvikalpaka cognition) the substrate which is in possession of its attributes and then has doubts.[40]

There is yet another reason why the substance-particular substrate must be perceived in the nirvikalpaka stage. The perception in the nirvikalpaka stage of a substance-particular, which is later perceived in the savikalpaka stage to be the main substrate, must be assumed in order to account for Vācaspati Miśra's theory of savikalpaka perception and the intervening stage of recollection required by it. In savikalpaka perception a past instance, a past occurrence or instantiation, of each of the components of the present object is perceived along with each of these components. The perception of each of these past instances derives from their recollection in the preceding, intermediate cognition of recollection. And the recollection of each of these derives from the initial perception of their corresponding present component in the nirvikalpaka perception.

The perception of a component of the present object in the nirvikalpaka stage activates a specific mental trace which in turn generates a recollection of a previous instance of the component – a previous instantiation of the component if it is an attribute and a previous occurrence of the component if it is an attribute. This recollection together with the sense-object connection then causes the re-cognition of this previous instance together with the present instance in the savikalpaka stage.

Thus if the past instance of a component is perceived in the savikalpaka stage and recalled in the stage of recollection, the component must itself been perceived in the nirvikalpaka stage. And if a past occurrence of a *specific* substance-particular substrate is to be perceived in the savikalpaka stage, and recalled in the intermediate cognition of recollection, the *specific* substance-particular itself must first be perceived in the nirvikalpaka stage. For example, if a past occurrence of Ḍittha – a specific substance-particular – is to be perceived in the savikalpaka stage, and recalled in the intermediate cognition of recollection, then Ḍittha himself must first be perceived in the nirvikalpaka stage.[41] And the perception of the past occurrence of a specific substance-particular in the savikalpaka stage is a necessary part of Vācaspati Miśra's theory of perception.

Vācaspati Miśra considers substance-particulars to be among the components of the physical object which are perceived in the nirvikalpaka stage. While the evidence for this interpretation is not individually as decisive as would be hoped for, collectively it is sufficient. In addition, there is little or no evidence to the contrary. On a subject of importance, if Vācaspati Miśra held views different from the Nyāya tradition at the time, he or one of his commentators or opponents surely would have mentioned it.

On a subject of such importance, if Vācaspati Miśra had held a view different from the Nyāya tradition at the time, he or one of his commentators or opponents surely would have mentioned it. In support of his position Vācaspati Miśra quotes frequently from Kumārila Bhaṭṭa, who as we have seen believes that the individual is perceived in the nirvikalpaka stage, but he never contradicts him. Similarly while it has not been conclusively shown that he ever explicitly refers to Bhāsarvajña or Jayanta Bhaṭṭa, who both admit that there are nirvikalpaka perceptions and that content of these perception include particulars as well as universals, he does not distance himself from their views or views similar to them.

Savikalpaka Perception and Conception

Savikalpaka perception is conceptual. According to Vācaspati Miśra savikalpaka perception is a form of judgment, a decision.[42] It is not simply the awareness of the object which is present. It is a synthesis of those components perceived in the earlier, nirvikalpaka stage and those recalled in the intermediate stage into a single composite object. These components include those of the present object and those of a past instantiation.[43] They are arranged by a web of differentiating relationships.

The percipient recognizes or classifies the object in terms of a subjective concept. In Nyāya terms, the percipient sees that an object is differentiated by a certain attribute and places that attribute by recalling another, representative instantiation of that attribute. In other terms, the percipient sees that an object meets a certain condition by possessing a certain attribute and is thereby a member of certain class with which he is familiar.

Vācaspati Miśra, like most Indian philosophers, does not distinguish between the concepts in terms of which one perceives the world and the meanings of the words through which he expresses what he perceives of the world.[44] Thus, conception and meaning are treated as forms of the same phenomenon.

Vācaspati Miśra's notion of conception comprises two basic elements: 1) the awareness of the object as differentiated by each of its attributes in the present and 2) the awareness of the same object in the past as differentiated by other, past attributes as well as the awareness of the present attributes differentiating other objects in the past. The first element is the major topic when Vācaspati Miśra's theory of perception is discussed; the second is invariably overlooked.

A percipient notices that an object is differentiated by being aware that the substance-particular substrate is inhered in by a certain attribute – a universal, a quality-particular, a movement-particular, or even another substance-particular.[45] He sees the object as it is. For example, a percipient notices that an object is a white cow

by being aware that a substance-particular is inhered in by the universal cowness and the quality-particular white.

But it is not enough to be aware that something is the instantiation of a certain attribute if one does not also know what this means. We have seen that Bhartṛhari, Diṅnāga, and Kumārila Bhaṭṭa addressed this each in their own way. Vācaspati Miśra must find a different solution, one which is compatible with his realism. The recollection of every past instantiation of an attribute would be one possibility, but is inconceivable.[46] The recollection of a paradigmatic instance discovered in extensive experience is another. Vācaspati Miśra's solution is that the percipient associate the current instantiation with an arbitrary but representative instantiation.[47] The percipient is aware of both instantiations, one past and one present, of one and the same attribute.

We might say that this aspect or portion of the content of savikalpaka perception presents the significance of what is seen. It does not provide any information which is not already in seen in the physical object. It rather provides a framework from which to view the object. It is not derived from implication. But it does provide the basis for implication.

The percipient understands what it means for the object to besomething by being aware of another, representative instantiation of the attribute. The percipient understands what it means for this to be a white cow by seeing a representative instantiation of cowness – another cow, one seen previously – and a representative instantiation of white – a white object seen previously – as well as the present instantiation, the present white cow.

The perception of specific objects, a certain white cow for example, differs. Just as the meaning of proper names pose problems different from those posed by common nouns and adjectives, the conceptual classification of an object as a specific individual poses problems different from those posed by the classification of an object as a member of a class, as a possessor of attributes common to certain other objects.

When a percipient recognizes an object, he does not see an object as differentiated by a special attribute which defines this specific object. Rather he sees one and the same object differentiated by two sets of attributes, those which the present occurrence possesses and those which it possessed when it occured earier.[48] Thus the percipient recognizes a specific object by identifying it with, or linking it to, a prior representative occurrence of the same object. Thus a percipient recognizes Sabaleya when he sees a specific cow possessed of the attributes Sabaleya currently possesses as well as those she possessed when the percipient first saw her and learned her name.

The Composition of Components

In order to explore several different issues we shall distinguish different portions of this content and examine each of them separately. The content of savikalpaka perception is a *composition* containing both components of the physical object currently being perceived and other components which are past instantiations or past occurrences of these current components, as well as the network of differentiating relationships which link these components.

The present portion of this composition consists of those components which belong to the current object and those differentiating relationships which integrate it into single a view of the present object.

The past portion consists of the remaining components and differentiating relationships, which are found only in the earlier perceptions and their recollections, that is, those components and relationships which remain after the present object and its attributes are substractred from the composition.

We shall first look at the present portion of this composition, the composite object, the arrangement of the components belonging to the current physical object being perceived.[49] This portion of the content contains more information than that of the content of the nirvikalpaka stage.[50] It contains information not only enumerating what

components are seen but also specifying what components are qualified by what other components. The information in a substance-particular inhered in by a universal, for example, is more than the sum of the information in the substance-particular and the universal. That is, the information that a substance-particular is inhered in by a universal is more than the information that there exists a substance-particular and that a universal is somewhere instantiated. This is information concerning the physical object which is missing in the nirvikalpaka stage and revealed in the savikalpaka stage.

This is not information found in repeatables or continuants – in universals, or in quality-, movement-, and substance-particulars. This specific information lies in the particular arrangement of the object's components. It is missing in the nirvikalpaka stage and revealed in the savikalpaka stage. This is important, as we shall see, because it is a significant element of the physical object and is not only knowable but expressible as well, though only by means of a sentence.

Although the substance-particular and the universals, quality-particulars, and movement-particulars are perceived in the nirvikalpaka stage, they are not perceived as substrate and attributes of one another. The fact that this information about the arrangement of the components – what is predicated of what – is not seen in the nirvikalpaka stage is significant concession on the part of a realist, but is not discussed or defended by Vācaspati Miśra. It will be discussed in detail in the next chapter.

Conception and Meaning

Just as the contents of savikalpaka perceptions can be expressed by sentences, the meanings of sentences are comprehended by savikalpaka cognitions. A look at these cognitions might clarify some of the issues concerning perception.

A cognition which comprehends the meaning of a sentence (*śabda-bodha*) is a savikalpaka cognition. Its content is an qualified object (*viśiṣṭārtha*).[51] This object is a

appearance or image, much like that in a perceptual cognition, differing perhaps only in vividness.[52]

The difference between nirvikalpaka and savikalpaka perception is conception, and as we saw earlier the Naiyāyika does not distinguish between the classifications - or meaning - made in the process of conception and the meaning - or classification - expressed in verbalization. Accordingly the content of savikalpaka is expressible while that of nirvikalpaka is not.

The content of savikalpaka perception is closely linked with language. The overall predication found in the content of a conceptual cognition corresponds to the meaning of a sentence or sentences. That is, the composite object found in the content of a savikalpaka perception is expressible by a sentence or sentences. The individual predications correspond to the meanings of individual words in a sentence. This fits well with the Naiyāyika theory of meaning. Individual words in isolation have no meaning. But they do have meanings as parts of sentences. Words when found in sentences have their own meaning, one which is distinct from the meaning of the sentence as a whole but which contributes to, makes up part of, the meaning of the sentence.[53] The Naiyāyika understanding of the predication made in conception is consistent with his theory of meaning.

According to the Naiyāyika an individual word simultaneously expresses an individual (a substance-particular), its configuration, and the universal.[54] This means that the word expresses an individual which has a certain configuration as differentiated by a universal. But different features of this complex are emphasized in different sentences. Which one of these three a word highlights depends on the context and the emphasis intended. In the sentence "bring the cow (and not the goat)", for example, the word 'cow' highlights the individual. In "cows give milk" the word highlights the universal. The configuration is simply the arrangement of the parts of the individual substance-particular. It doesn't exist distinct from the substance-particular, and is not

always present, as in gold or butter for example.[55] It is de-emphasized in later Nyāya literature. In each of these cases the word 'cow' expresses in varying degrees the individual cow as qualified by the universal cowness. Thus an individual word may express a variety of entities depending on context and emphasis. But it also always expresses an individual object as qualified by a universal.[56]

Potter characterizes the meaning of words as "minimal sentences."[57] This is suggestive, but is not totally correct. Potter's point is that since a word expresses an individual differentiated by a universal – a cow, by cowness for instance – there is predication, or differentiation (*viśeṣana-viśeṣya-bhāva*), and thus a sentence.[58]

But differentiation which is not specific is not enough. While the universal may be specific, cowness for instance, the substrate is left unspecified. The individual possessing cowness must be further specified. It must at least be expressed or understood as an individual, or substance-particular.[59]

The meaning of a single word such as 'cow' when analyzed as a partially specified instantiation might appear to be a simple existential sentence such as "there is a cow". Its meaning would be that there exits somewhere a substance-particular or that some substance-particular is a cow. But existence, like number, tense, etc., is for the Naiyāyika a predicate and must be additionally specified. Existence is in fact a universal (*sattā*). Without this additional predicate such instantiations are neutral with regard to existence and nonexistence. Such an instantiation might in fact be part of an assertion which states its nonexistence. Thus 'cow' alone cannot mean "some cow exists". Thus the meaning of a single word – an individual differentiated by an attribute – would need to supplemented with at least one other predicate or attribute to form the meaning of a sentence. In this case there would be a common substrate for these attributes.

A single word, even if embedded in a sentence, does not fully specify a particular instantiation of a universal – a substance-particular inhered in by a universal – which one could understand or visualize. A single word cannot be extracted from a sentence

to form a sentence on its own. Thus there are no single word sentences which are without another implicit word.

There is another piece missing. In sentences such as "a cow is an animal" the meanings of the individual words 'animal' and 'cow' are not in themselves linked with each other. The meaning of the word 'cow' is an individual substance-particular as qualified or differentiated by the universal cowness while the meaning of 'animal' is also an individual substance-particular as qualified by the universal animal-hood. Neither specifies that it is one and the same substance-particular which is the substrate for the universal cowness and the universal animal-hood and is thus part of the meaning of both 'cow' and 'animal'. In Sanskrit the suffix of each of these words can specify that they are of the same case.[60] But more is needed to specify that they are also co-referential.

Thus the syntactical connections between words - which is often based on co-reference - are not simply a part of the meaning of the individual words. They are nonetheless an essential element of sentence meaning.

The content of savikalpaka perceptual cognitions are expressed in complete sentences. And while these sentences often refer to a single object, they just as often to more than a single object. The relationship between these objects forms a portion of the meaning or content of such sentences. In addition to the meaning of the stems and roots, the meanings of the suffixes - the various case functions and other relationships - as well as the meaning of syntactical connections (*saṁsarga*) between word forms (*pada*) convey these multi-object meanings. These syntactical connections can be connections of unity (*abhedasaṁsarga*) or connections of difference (*bhedasaṁsarga*). That is, they may unite or center the meanings of several words on one object or they may connect different objects in certain kinds of relationships.

The meaning of a sentence, or the content of a cognition comprehending that sentence, is not the sum of the meanings of all of the constituent words. Nor is it a

distinct entity over and above the word meanings. Rather it consists in the meanings of the constituent words and the syntactical connections between them, a qualified object (*viśiṣṭārtha*).

When one comprehends a sentence one first hears the physical embodiment of the sentence. Each of the words (*pada*) embedded in the sentence triggers recollections of its own meaning (*svārtha*).[61] As we have seen, the meaning of each of these words involves an individual qualified by the appropriate universal. But none of these word meanings include their connections to other word meanings.

Following these recollections and drawing on three sentential properties a conceptual cognition of the complete sentential meaning arises. These properties are: expectancy (*ākāṅkṣā*), grammatical completion; appropriateness (*yogyatā*), the lack of inconsistency of meaning between words; and grouping (*āsatti* = *saṁnidhi*), the proximity of related words. These sentential properties are are not manifested within the words (including their affixes) which make up the sentence.[62]

The content of the nirvikalpaka stage of perception cannot be expressed for a couple of reasons. Perhaps more definitively, but less interesting philosophically, it cannot be expressed because it is not accessible to consciousness. Verbal expression of the content of a cognition, which is volitional according to the Naiyāyika, relies on the introspection of the content by means of one's consciousness. But only the content of the savikalpaka stage is accessible to consciousness, the content of the nirvikalpaka stage is not accessible to consciousness and thus not expressible in language.[63]

The content of the nirvikalpaka stage cannot be expressed for another, more important reason. It is meaningless. It is meaningless in the sense that it cannot serve as the meaning of sentences. It cannot even serve as the meaning of the individual words in sentences. As we have seen, a word does not refer to just a universal or just an individual substance, it refers rather to the individual substance as qualified by the universal. But in the nirvikalpaka stage the content consists solely of the unqualified

components of the object. And the meaning of a sentence requires even more. Which components differentiate which other components is information missing in the content of nirvikalpaka perception.

Thus we have found that the meaning of a sentence is more than the simple sum of the meanings of all of its constituent words (*pada*). The information specifying which words are co-referential, and which are not, is not found among the information conveyed by the words, either individual or collectively.

This information is necessary for the meaning of a sentence and is found in a savikalpaka cognition. It is not, however, found in the content of a nirvikalpaka cognition. This meaning is more than the sum of the components perceived in a nirvikalpaka perception. It is found in the web of differentiating relationships found in the content of savikalpaka cognition.

The Kinds of Components Seen – The five Predicables

The Naiyāyika as we saw earlier analyzes the world into seven kinds or categories of ontological entities. All other existents are made up of these and only these seven kinds. Thus any specific physical object consists in a specific arrangement or configuration of these seven kinds. And anything which is perceived consists in an arrangement of these.

It is out of these entities that composite physical objects (*jātyādimadartha*) are made. A composite physical object is a substance-particular as qualified by its attributes at a specific time and in a specific state.[64] It does not exist as a whole over and above its component entities. (While the substrate substance-particular is a whole (*avayavin*) distinct from its components, the composite physical object is not.) One physical object is differs from another not only because its set of components differs but because the arrangement or composition of these components also differs. Thus a specific composite physical object consists of a substance-particular substrate inhered in by

various universals and quality- and movement-particulars (which themselves have universals). It is thus a specific collection of the ontological entities in a certain order, an arrangement or configuration.

As we have seen a distinction between the nirvikalpaka and savikalpaka stages is the presence of distinguishing relationships between the substrate and its attributes in the content of the savikalpaka stage and lack of this relationship in the that of the nirvikalpaka stage. Vācaspati Miśra illustrates this differentiation by enumerating the five traditional categories of predicables which are predicated to physical objects.[65]

This fivefold classification of predicables is first found in Diṅnāga's *Pramāṇasamuccaya*[66]. It is primarily a grammatical system of classification of the basic kinds of co-referential (*sāmānādhikāraṇya*) predication. This type of predication is the attribution of some characteristic to a single substrate and is usually expressed by placing words in the same case-ending (nominal and verbal).

The first four predicables correspond to traditional classes of words: proper names, common nouns, adjectives, and verbs (or verbal nouns). The fifth is found here for the first time. It recognizes a distinct class of words which previously had to be subsumed under one of the other categories, adjectives. It makes the classification more complete, but also opens up problems as we will see. Interestingly, other kinds of adjectival compounds such as 'red-haired' and 'of leonine courage' are not included.

These five predicables correspond to five basic kinds of predicates (and attributes) generally found in sentences. These are not the five most common (or even basic) kinds of sentences, but are rather the basic constituents of simple sentences. It is the sentence – consisting of various instances of these predicates – which is the basic unit of verbal expression regarding the content of cognitions. But what is epistemologically important is the meaning, the physical correlate (or referent) of the sentence – the physical object as it is perceived (*viśiṣṭārtha*). And although the sentence reflects the structure and

components of the perceived object, it is the referent, the physical object as the perceived object, which is at issue here.

This composite physical object is composed of numerous entities which correlate with individual sentential predicates. And in many cases, more than one component entity correlates with a single predicate. Thus when a single predicate is used, more than one metaphysical component may be expressed. For example, the universal cowness is expressed by the phrase "(this is) a cow" and manifested in the cognition "(this is) a cow." Whereas both a individual quality-particular, a particular swatch of white, and its universal whiteness are expressed by "(this is) white."[67]

Let us look at the examples of each kind of predicable that Vācaspati Miśra gives[68]: "this is Ḍittha", "this is a cow", "this is white", "this is going", and "he is holding a waterpot". Ḍittha' expresses a specific substance-particular, Ḍittha. This specific substance-particular is the substrate, there is no separate attribute corresponding to Ḍittha. 'Cow' expresses the universal cowness. 'White' expresses a specific quality-particular, a certain patch of white, along with its own differentiating universal whiteness. Similarly 'going' expresses a movement-particular, a certain case of movement, along with its own universal. And 'waterpot-bearer' expresses one substance-particular, a person, as conjoined to another substance-particular, a waterpot.[69]

These five kinds of predicates are not the expressions for five kinds of (mutually exclusive) perceptions, but rather five kinds of predicates or attributes which can be and usually are combined in the expression of a single perception. The content of a savikalpaka perceptual cognition is usually an object or objects differentiated by several predicables.

Examples of the contents of perceptual cognitions specifically identified as savikalpaka which include several predicables are not given by Vācaspati Miśra, however. Simple examples with single predicables are used to clarify points simply.

Examples of perceptions in general which are of objects differentiated by multiple attributes are common.[70]

And examples of the contents of savikalpaka perceptual cognitions which include multiple objects are also not given. Most of our perceptions are of more than one object. Certainly a theory of perception should account for this. But Vācaspati Miśra's discussion of the contents of savikalpaka perceptions does not included multiple objects. We will later find in the next chapter in fact that this emphasis affects his understanding of the problem and perhaps even the viability of his solution.

There is, however, plenty of positive support for this interpretation. The emphasis of Vācaspati Miśra's discussion is on single physical objects, but he does accept one kind of predicable which accommodates at least some cases of multiple objects. This is the predicable called 'substance' where one substance-particular qualifies another. It is exemplified by "this is a waterpot-bearer" or "he is bearing a waterpot" (*kamaṇḍalumān ayam*). In this example, there are two objects, one of which is considered to differentiate the other – the waterpot differentiates the person (from those who aren't holding waterpots).[71]

So in this case more than one object is perceived. But what about ordinary perceptions where multiple objects are perceived such as "he is cooking rice in a metal pan"? Or even "a man of dark complexion is carrying a bright brass waterpot"?

Let us examine whether more than a single physical object can be perceived at one time. According to the Naiyāyikas not everything which appears to be perceived at the same time in a single cognition actually is perceived at the same time.

Although objects which are located at various distances from the percipient appear to be perceived simultaneously, they are upon closer inspection found to be perceived sequentially – the nearer object is perceived earlier and the farther, later. The sense does not reach and make contact with the objects at the same time, thus they are not perceived in the same cognition.

But almost everything else which appears to be perceived at the same time in a single cognition is. Objects which are located at various distances from each other (but at the same distance from the percipient) can be perceived simultaneously. The sense of sight fans out when it leaves its seat in the eye and moves towards its objects and thus can connect with several objects simultaneously.[72] And complexes of objects are said to be perceived at one time. One can perceive the presence of a pot on the ground – a conjunction (a quality- particular) between the pot and the ground – as well as the absence of a pot on the ground – an absence qualified by a pot qualifying the ground. And one can perceive both a whole and its parts at the same time. One sees the handle of a pitcher and its shape, color, etc. along with the body of the pitcher and its separate shape, color, etc.[73]

The domain of contents attributed to perceptual cognitions in general, should apply to the savikalpaka of perception or both stages of perception. Thus more than one physical object can be perceived at one time in a savikalpaka perceptual cognition, even though this fact is not explicitly stated by Vācaspati Miśra.

The content of a savikalpaka perceptual cognition which contains multiple objects must involve more than a single predication (of a single predicable) and more than the predication of multiple predicables to a single substrate. They must consist of a complex mix of predications – multiple attributes and multiple substrates.

Thus we have seen that the content of savikalpaka perceptual cognitions includes objects with multiple attributes. It includes multiple physical objects which fall within the range of perception, which are connected to a sense. It includes wholes as well as parts. And it includes complexes as well as single objects.

The early Naiyāyika also holds that the content may contain elements which are not present in time and space. Vācaspati Miśra endorses this and extends it. He holds that the content of all savikalpaka cognitions includes references to a past state – set of

attributes – of the substance-particular substrate and past instantiations of the attributes – universals and quality-and movement-particulars.

The earlier Naiyāyika claimed that some cognitions of identification (*pratyabhijñā*) are a variety of perception.[74] When one looks at a person and identifies him with someone seen previously as in "this man before me is the same man whom I saw yesterday in Patna", the cognition which ensues is a single unitary perception. Past elements are introduced into what is generally considered to be perception in order to identify or place the object perceived. Vācaspati Miśra extends the inclusion of past elements to all varieties of perception.

Most characterizations of Vācaspati Miśra's version of savikalpaka perception are incomplete. They focus on the overall arrangement of the components which is present in the content of all savikalpaka perceptual cognitions. They neglect the the past states and instantiations of these components, the contribution which the percipient makes. They thus portray savikalpaka perception as merely the awareness (or even observation) of a differentiated physical object rather than the recognition and classification of this object in terms the percipient understands.

The Perception of a Specific and Familiar Object

Suppose that a percipient is watching a black cow named 'Sabaleya' ambling down a path. If he were simply aware of the cow, without the assistance of his memory, he would simply be aware of a single ambling black cow. He would not recognize her as Sabaleya. For there would be nothing in the content of the cognition which would characterize her as Sabaleya and which could serve as the means by which the percipient could recognize her. There is no universal or set of universals which define Sabaleya. The specific substance-particular which serves as the substrate for all of her attributes is unique, but is not of itself, shorn of all attributes, distinguishable from any

other substance-particular.[75] The percipient might see the object as it is without recognizing it for what it is.

If the percipient were to be perceive the cow in a savikalpaka perception, he would recognize the cow as Sabaleya. He would identify this cow with one seen previously. This requires that the content of a savikalpaka perception of a specific and familiar substance-particular also include the same substance-particular at a different time, and thus in a different state differentiated by different attributes. Accordingly, the content of the savikalpaka stage includes attributes which are not present and which were not in the content of the preceding nirvikalpaka stage. The savikalpaka stage recognizes the substance-particular substrate of the present object, the object in question, by noticing that a single substance-particular serves as a substrate for two different sets of attributes. The substrate for certain attributes of the present object (which are also found in the nirvikalpaka stage) and the substrate for other attributes of a past (and previously perceived) object are one and the same substance-particular. Thus a percipient is able to recognize a specific object for what it is by recognizing that the object standing before him which has certain attributes is the very same object which was seen by him before but with other attributes.

Let us take a look at the example which is generally taken to be the paradigm for what constitutes the content and role of the stage of remembering which precedes the savikalpaka stage: the perception of a man named 'Ḍittha' who is known by the percipient. When the percipient comes upon Ḍittha and has a savikalpaka perception in the form "this is Ḍittha" the following sequence has taken place. The object connected to a sense produces a nirvikalpaka perception of the substance-particular Ḍittha and each of its attributes – universals, quality- and movement-particulars – but not as related. This nirvikalpaka perception then activates a memory trace which in turn produces an instance of remembering, or a recollection (*smaraṇa*).[76] The content of this

recollection and of the preceding memory trace is Ḍittha at the time when the percipient first learned Ḍittha's name.

The object, continuing to be connected to the sense, (along with other necessary conditions) is then aided by this recollection of the past state of Ḍittha and generates a savikalpaka perception of Ḍittha. In this stage, Ḍittha is identified as Ḍittha. A single unity of the substance-particular substrate and the present attributes - those which were just seen in the nirvikalpaka stage - and some past attributes - those which were just seen in the stage of recollection - appears in the content of the savikalpaka stage.[77]

In addition, the recollection of the past state of Ḍittha goes on to produce an instance of recollection - a cognition distinct from the savikalpaka perception - of the name 'Ḍittha' which is applicable to Ḍittha. There are thus two cognitions. One perceptual and the other verbal.[78]

Vācaspati Miśra emphatically denies that the recollection of the name of the object takes part in the generation of the savikalpaka stage of perception. His argument is simple. If the remembering of the word for an object were a necessary causal condition for the savikalpaka perception of that object, then those who had never learned the word, such as those deaf from birth, would never have savikalpaka perceptions, yet they do.[79] He also denies that the content of the savikalpaka stage of perception must carry any trace of the name 'Ḍittha'.[80] It does, however, contain some sort of reference to the earlier state of Ḍittha when the name was learned. Thus the savikalpaka perception expressed by "this is Ḍittha" contains no verbal element and was not generated by the recollection of the word 'Ḍittha' as a causal condition.

The Content of the Remembering Stage Need Not Involve Language

The argument from the fact that infants and the deaf have savikalpaka perceptions also brings up the question as to what the past state which is remembered must be in order to bring about a savikalpaka perception.[81] Surely one who cannot remember a

name because he never learned it cannot remember the situation (or state of the object) which existed when he would have learned it. Thus Vācaspati Miśra's argument shows not only that the remembering of the name of an object cannot be a necessary condition for the production of savikalpaka perception, but also that remembering that very state of the object when the name was fixed cannot be a necessary condition.

Perhaps then what Vācaspati Miśra was really arguing for is that while the recollection of some past state of the object is necessary for every instance of savikalpaka perception, the recollection of the object's name or the specific state of the object when the name was learned is necessary for only some. That is, the recollection of some past state of the object is necessary for the generation of savikalpaka perception; while the recollection of that past state of the object at the time when its name is fixed is necessary for the pair of cognitions – the perception of the object as well as the recollection of the proper name of the object.[82]

The Conception of an Object in General Terms

What about perceptions in which the object is conceived of generally, that is, is classified according to a general class? Whether or not a specific object is recognized is not relevant here. In order to emphasis the generality of the classification, we will look at an example where the classification is of individual which is unfamiliar to the percipient. The percipient will be familiar with the kind or class, but not with the specific member which is perceived.

Suppose one comes upon a cow which he hasn't seen before. He will not recognize the cow as a specific cow, as a cow that he has seen before; but will classify it as a cow and have the perception "here is a cow." Since he has never seen this cow before the percipient will be unable to remember this cow as it was at any time in the past. Of what then will his recollection be?

Interestingly, this kind of perception of an unfamiliar particular object is not explicitly distinguished from the above kind and thus given separate treatment. Yet it does not fit the above account insofar as the specific object was never perceived before.

Vācaspati Miśra briefly discusses the savikalpaka perception in the form of "this is a cow" on two different occasions. He includes different details in the two. On the first occasion, when he is claiming that it is the self (*ātman*) and not the senses which does the conceiving, he describes the sequence leading to the savikalpaka perception. first there is the direct cognition (*ālocya*) of the object, this is followed by an activation of a certain mental trace, and this in turn produces a recollection of a previous object (*piṇḍa*),[83] and from this arises a savikalpaka perception in the form of "this is a cow".[84]

On the second occasion while giving what appears to be a response by another school in support of his own position he describes the sequence differently. After the awareness of the object in the nirvikalpaka stage, which is produced when the sense and object are first connected, there arises both a recollection of a word whose relationship (to some object) was earlier cognized and a savikalpaka cognition of the substance-particular differentiated by the universal denoted by that word.[85,86]

What we can piece together out of these two descriptions is that Vācaspati Miśra views the generation of a savikalpaka perception of a general object in much the same way as one which concerns a specific object. There is the initial, nirvikalpaka perception of the object as possessing its attributes. There is a stage of recollection of some object between the nirvikalpaka and savikalpaka stages. And following that there is the savikalpaka cognition of a substance-particular substrate differentiated by a certain universal (= cowness) denoted by a certain word (= 'cow') and there is a recollection of that word.

He has already claimed that there must be some sort of recollection (or activated mental trace) involved in the production of every savikalpaka perception and that the recollection of a word does not contribute to the generation of a savikalpaka

perception.[87] Consequently, there must be another instance of recollection, in this case the source of both the savikalpaka perception of the cow and the associated recollection that the object is called a 'cow'. He does not, however, specify what the content of the recollection is.

And as we saw in the previous case there are those who have savikalpaka perceptions and yet have no command of language. What goes on in their mind when they see a cow which they have never seen before? It would seem reasonable that the percipient would remember a substance-particular which instantiates the relevant universal, that is, that the percipient would remember some cow which he had seen sometime before, perhaps the first cow the percipient ever saw. And for one who does know how to speak, on the other hand, this would be that cow which was present when the percipient learned the word 'cow'.

If Vācaspati Miśra were not to acknowledge the recollection and subsequent incorporation in the savikalpaka perception of a past instantiation of a universal, then his explanation for the generation of a name would not apply to general terms in all of those cases where one sees a new member of a familiar class.

Thus it is reasonable to conclude that Vācaspati Miśra considered that an intermediate stage of recollection is necessary for each (significant?) component in the content of savikalpaka perceptual cognition and for each word recollected and applied to what is perceived, not just for those perceived objects which are specific and familiar, and whose proper name the percipient knows.

In this case conception would have two distinct aspects: the distinguishing of the object from others, simply the awareness of the object as differentiated, and the recognition and classification of what is being seen, the understanding of what of what one is aware. The recollection of a past instance - occurrence or instantiation - would be necessary only for the second. But Vācaspati Miśra does not extensively discuss this area of perception and does not explicitly state that any of the attributes, those

predicates not expressed by proper names – but by common nouns, adjectives, verbs, and substance possessives – are recollected as instantiated by another, prior object and as such form part of the content of the savikalpaka stage.

An Alternative Interpretation

Vācaspati Miśra's intention may have been that conception is realized in two ways according to object rather than two aspects or functions. On the one hand, conception of attributes might be simply be the awareness of their instantiation, their characterization of a substrate. This would not require the involvement of memory. On the other hand, the conception of a specific substance-particular substrates – the referent of the notoriously difficult to analyze proper name – would demand another process, since characterization does not define a specific substance-particular.

There is no universal which defines a substance-particular as a specific substance-particular or which is denoted by a proper name. There is no universal which when seen differentiating a substance-particular will allow one to recognize this substance-particular. Vācaspati Miśra looks instead to the fact that a substance-particular continues through time, has often been seen before, and can thus be remembered. When a substance-particular is seen to be the substrate for two distinct sets of attributes, one can see that the substrate of the current set of attributes and the substrate of an earlier set of attributes are one and the same substance-particular.

Under this interpretation there would be only one element of conception. It would be realized in two different ways – by the awareness of characterization of the object and by identification of the present occurrence of the object with a past one – depending on the kind of component being conceived.

On the one hand, a white object, for example, would be seen to be white when it is seen to be characterized by a white quality-particular and a cow would be seen to be a cow when it, a unspecified substance-particular, is seen to characterized by the

universal cowness. On the other hand, a specific cow would be seen to be specific when it is seen (conceived) to be the substrate of two distinct sets of attributes. These two different processes would serve the same function, conception.

The Perception of Novel Kinds of Objects

We have now seen how the Vācaspati Miśra is likely to account for the perception of entities which he has perceived before. How though does he account for the perception of entities which have never been perceived before? How does one perceive a specific person for the first time, or a cow (but not a particular cow), or a color, movement, etc., if he has no prior experience on which to rely?

Vācaspati Miśra does not discuss this situation, but it seems plausible that he would allow that the percipient in this case does see the object but does not really see the object for what it is, he does not recognize or classify it. Unless, he has heard about the entity, in which case he might be able to classify it by analogy (*upamāna*). He would see the object and recognize some parts of it but be simply aware of other parts of it, the novel parts.

Thus someone who sees a camel for the first time would recognize its color, would classify various shapes of the parts which make it up, and so forth. And he would be aware of the novel parts and the instantiation of the universal camelhood. But he would not recognize the animal as a camel this time. The second time he would recall this camel.

The Two Roles of the Remembering Stage

The stage of remembering, or recollection, in perception serves two distinct functions or roles. It is partly responsible for our ability to recognize objects for what they are. That is, it takes part in the generation of the next stage of perception, the fashioning (or activation) of the components perceived in the nirvikalpaka stage into a

differentiating relationship, and the contribution to the content of this next stage the reference to the past state (which corresponds to its own content). It also is partly responsible for ones ability to remember a word for the object which one is perceiving. That is, it accounts for the generation of the recollection of a word (and its appropriate application).

Although Vācaspati Miśra was moving in the direction of uncoupling these roles (of conceptualization and verbalization) and assigning them to completely different processes, he stops short by positing a stage in each which is common to both. Since both depend on some form of remembering, he surmises that it is the same instance of remembering. Thus the stage of remembering in the generation of savikalpaka perception has a dual role. These two roles, however, are not filled completely or in the same way in each kind of perception.

In the perception of a specific familiar object the remembering stage fills both roles completely. The past state cognized in the remembering state plays a prominent part in the judgement of the following savikalpaka stage.

The other role is filled in that the recollection of the appropriate word for the object is derived from this stage of recollection of the object. The recollection of the object at the time that one learned the name for it triggers the recollection of that name.

In the perception of an object or attribute for the first time, the stage of recollection seems less responsible for the formation of the savikalpaka stage, at least in affecting the nature of its content. It is not necessary as a basis for verbal cognition, for there will be none with regard to the new object.

Vācaspati Miśra provides the Naiyāyika with a conceptual theory of perception. He was motivated by the desire to incorporate many of the recent ideas concerning conception. At the same time he wished to stay close to the original spirit of realism of the earlier Naiyāyika. He chose a two stage model of perception in which he combined the direct access to the world with a conceptually mediated view of the same world,

both produced by a sense-object connection. In doing this Vācaspati Miśra made several adjustments which have significant philosophical implications. We will look at these in the next chapter.

Thus recollection provides the basis for the classification of the present object seen in the nirvikalpaka stage. The information passed on by it to the savikalpaka stage adds nothing to the object *qua* present object, but places it within a conceptual scheme. The content of this savikalpaka stage is more than simply the components seen in the prior, nirvikalpaka stage. The content is the object as classified, as conceived.

Vācaspati Miśra provides the Naiyāyika with a conceptual theory of perception. He was motivated by the desire to incorporate many of the recent ideas concerning conception. At the same time he wished to stay close to the original spirit of realism of the earlier Naiyāyika. He chose a two stage model of perception in which he combined the direct access to the world with a conceptually mediated view of the same world, both produced by a sense-object connection. The preconceptual stage of perception provide direct access to the present object, not as an undifferentiated given, but to the individual components which make it up, though not perhaps to all of them. The conceptual stage of perception incorporates subjective elements - it calls on memory in order to classify the object. But it does so within a realistic context - the object and its components are still considered to be external, real. In doing this Vācaspati Miśra made several adjustments which have significant philosophical implications. We will look at these in the next chapter.

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[1] Vācaspati Miśra was not the first Naiyāyika to accept this division of of perception. Bhāsarvajña recognized the pair in his *Nyāyasāra* and *Nyāyabhūṣana* (Matilal summary in Potter, p. 413). According to Suali (Karl H. Potter, *Indian Metaphysics and Epistemology*, p. 9) Bhāsarvajña flourished ca. A.D. 860-920. *Nyāyasāra*, p. 3. "tac ca dvividham / savikalpakaṁ nirvikalpakaṁ ca // tatra saṁjñā-saṁjñi-saṁbaṁdhollekhena jñānotpatti-nimittaṁ savikalpakam yathā devadatto'yam daṁītyādi // vastu-svabhāvamātrāvabhāsakaṁ nirvikalpakam yathā prathamākṣasannipātajaṁ jñānam / yuktāvasthāyāṁ yogijñānaṁ ca"

Vācaspati Miśra, however, following his teacher Trilocana introduced what became the traditional rationale for finding this division in the definition of perception found in the *Nyāya Sūtra*, the reinterpretation of the terms '*avyapadeśya*' and '*vyavasāyātmaka*'. Bhāsarvajña, however, claimed that this *sūtra* (I.1.4) defined only nirvikalpaka perception.

[2] The distinction is frequently given as "*goḥ jñānam*" and "*gaur ayam iti jñānam*" or "*nīlasya jñānam*" and "*nīlam iti jñānam*".

[3] Vācaspati Miśra mentions that the recollection or the activated mental trace may generate the savikalpaka perception. If it is a mental trace, there would be no intermediate cognition of recollection. See *NVTT*(K), p. 139.22-23. Vācaspati Miśra, however, consistently uses recollection in his explanations and examples. Later Naiyāyikas favor mental traces.

[4] If the savikalpaka stage is erroneous, however, some of the components perceived in the nirvikalpaka stage will not be perceived in the savikalpaka stage (otherwise there would be an indefinite cognition (*saṁśaya*)). They will have been replaced by components which were inappropriately recollected. Whether these were recollected in the intermediate stage of recollection is unclear. Vācaspati Miśra is silent on this.

[5] It has been suggested that in order to function as it does, nirvikalpaka must be a form of recognition. That is, in order to trigger the correct memory traces, nirvikalpaka perception must recognize the individual components. We will examine this in the next chapter.

[6] This is simply a restatement of the fact that for the Naiyāyika all cognitions are without a form of their own and consist solely in awareness, albeit awareness directed at an external object. This is in chapter two.

[7] See *NBh* and *NV* II.1.33.

[8] See *NV* II.1.33 and I.1.4.

[9] See *NVTT*(K), pp. 135.19-136.3.

[10] See *NVTT*(K), p. 142.2-142.15.

[11] On the one hand, in the nirvikalpaka stage of perception even though one is aware of general universals in themselves, one is not also aware of their instantiations. On the other hand, one is often aware in the nirvikalpaka stage of specific universals as well as the more general ones.

[12] *NVTT*(K), p. 125.10-12. "avidyamānaṁ vyapadeśyaṁ yasmiṁs tad avyapadeśyaṁ jātyādisvarūpāvagāhi, na tu jātyādīnāṁ mitho viśeṣaṇaviśeṣyabhāvāvagāhīti yāvat." See also *NVTT*(K), p. 125.7-10. "tatra vyapadeśo viśeṣaṇam upalakṣaṇaṁ vā nāmajātyādi, tatkarma vyapadeśyaṁ viśeṣyam iti yāvat / tadyathā ḍittho 'yaṁ gaur ayaṁ śuklo 'yaṁ kamaṇḍalumān ayaṁ gacchaty ayam iti, sarvaṁ hi savikalpakaṁ viśeṣaṇaviśeṣyabhāvena vastuṣu pravartate." These passages will be discussed below.

[13] See *NV* II.1.33 and *NVTT*(K), p. 139.15-17.

[14] See Potter, *Indian Metaphysics and Epistemology*, p. 143-46.

[15] See NVTT(K), p. 211.24-212.2.

[16] "tac [asat] ca pratyakṣam akṣa-vyāpāre sati tat-pratyayāt / na ca pratiyogi-smaraṇa-vyavahita indriyārthasannikarṣo na_alam abhāva-dhiyam upajanayitum

iti sāṁpratam ity agre darśayiṣyāmaḥ / savikalpakasya pratyakṣatvasiddhau yathā śabda-smaraṇa-pūrva-gṛhīta-piṇḍānusandhānādayo na_indriya-vyāpāraṁ vyavadadhatīti." *NVTT*(K), p. 211.13-16.

17 See Potter, p. 144.

18 As an aside, it might be noted that according to Vācaspati Miśra it is the substance-particular, such as a pot, which differentiates absence. What would the predicate, or particularizer (*viśeṣaṇa*), be in a savikalpaka perception of the absence of a pot?

19 See *NVTT*(K), pp. 210.12-211.5. See also *NBh* II.2.15.

20 Inherence is singular and homogenous; it is not broken up into segments nor is it instantiated or particularized.

21 See *NVTT*(K), p. 111.6--9. "tad evam asti saṁbaddhānubhavo, na ca_asau sambandhānubhavaṁ vineti sambandho 'nubhūyate, sa ca_ayutasiddhyādisaṁpattyā samavāyo, na ca_asya_anyaḥ samavāyo 'navasthānāt."

22 Vātsyayana states that one can apprehend a universal only through the prior? apprehension of the individual or configuration. *NBh* II.2.67.

23 See Musashi Tachikawa, *The Structure of the World in Udayana's Realism*, pp. 9-10 and D.N. Shastri, *The Philosophy of Naiyāyika-Vaiśeṣika*, pp. 77-80.

24 Vācaspati Miśra states this in his definition of nirvikalpaka perception. *NVTT*(K), p. 125.10-11. "avidyamānaṁ vyapadeśyaṁ yasmiṁs tad avyapadeśyaṁ (= nirvikalpaka-pratyakṣa) jātyādisvarūpāvagāhi ..." We will return to this passage presently.

25 See the Buddhist position and argument beginning with *NVTT*(K), p. 133.16.

26 See *NV* II.2.66 and II.2.71.

27 See Masaaki Hattori, "Two Types of Non-qualificative Perception", pp. 165-6.

28 See Hattori, pp. 166-8.

29 Vācaspati Miśra glosses '*vyapadeśya*' by '*viśeṣya*' a few sentences before.

See *NVTT*(K), p. 125.7-8. "tatra vyapadeśo viśeṣaṇam upalakṣaṇaṁ vā nāmajātyādi, tatkarma vyapadeśyaṁ viśeṣyam iti yāvat."

30 See *NVTT*(K), p. 125.10-12. "avidyamānaṁ vyapadeśyaṁ yasmiṁs tad avyapadeśyaṁ jātyādisvarūpāvagāhi, na tu jātyādīnāṁ mitho viśeṣaṇaviśeṣyabhāvāvagāhīti yāvat." See also *NVTT*(K), p. 125.7-10. "tatra vyapadeśo viśeṣaṇam upalakṣaṇaṁ vā nāmajātyādi, tatkarma vyapadeśyaṁ viśeṣyam iti yāvat / tadyathā ḍittho 'yaṁ gaur ayaṁ śuklo 'yaṁ kamaṇḍalumān ayaṁ gacchaty ayam iti, sarvaṁ hi savikalpakaṁ viśeṣaṇaviśeṣyabhāvena vastuṣu pravartate."

31 This is not strictly so with the attribute which corresponds to Diṅnāga's *nāma*. This will be discussed below.

We are here concerned only with the differentiation of an object or substance-particular. It is this object which lies at the center of the controversy here being discussed.

32 While in fact quality- and movement-particulars are differentiated in savikalpaka perceptions the difference between nirvikalpaka and savikalpaka perceptions is the presence or absence of the differentiation of the substance-particular substrate.

33 This follows from Vācaspati Miśra's version of the five predicables.

See *NVTT*(K), p. 135.9-11. Here Vācaspati Miśra gives a *pūrva-pakṣa* which counters the Nyāya position that the components are perceived in the nirvikalpaka stage as unrelated. "piṇḍa-vivekena jāty-āder avikalpakenāgrahaṇāt / na hi jātijātimantau kriyā-kriyāvantau guṇa-guṇinau tat-samavāyo vā vivekena cakāsati /"

34 The corresponding compound used by Diṅnāga is *nāma-jātyādi* and can be expanded to (specific) individual (*nāma*), universals (*jāti*), qualities (*guṇa*), movements (*kriyā*), and substances (*dravya*)(which function as attributes). While Vācaspati Miśra recognizes the five sentential predicates which correspond to these metaphysical referents of Diṅnāga, he understands their metaphysical referents

differently. He recognizes four as attributes (if a substance-particular in contact with another substance-particular be an attribute) and one as the substrate.

[35] Compare this with *NVTT*(K), p. 135.11-12 and 135.15-16. "na ca vivekenāpratibhāsamānāḥ śakyā **mitho** yojayituṁ" and "na hy aṅgulyāv ekavijñāna-viṣayau mitho viśeṣana-viśeṣya-bhāvam āpadyete." And *NVTT*(K), p. 144.11-12. "sa caikādhikaraṇe smaryamāṇau **mitho** viruddhau dharmav āropayann anyataran nāvadhārayati." And also *NVTT*(K), p. 210.12-14. "avayavāvayavinau guṇa-guṇinau kriyā-kriyāvantau jāti-jātimantau ca **mithaḥ** saṁbaddhāv anubhūyete nānyathā tantuṣu paṭa iti śuklaḥ paṭa iti paṭaḥ spandata iti ca paṭo dravyam iti ca buddhi-vyapadeśau syātām."

According to Monier-Williams '*mithas*' does occassionally take a word in the instrumental case. It then means: together with. But this isn't the meaning Hattori is looking for. Instead this would give us: a differentiating relationship of these universals and so forth together with (a substance-particular substrate).

[36] See *NVTT*(K), p.135.1-6. "nirvikalpakena prathamākṣa-sannipāta-janmanā jātimad-vastu-vedanāt tatra_upalabdha-cara-sambandhasya śabdasya samaraṇaṁ, tathā ca tac-chabdābhidheya-jāti-viśiṣṭa-dravyāvagāhi_indriyārtha-sannikarṣa- janma-vikalpa-pratyayo gaur ayam ity evam ākāro jāyata iti ced / yathā_āhur niruktakārāḥ – nirvikalpaka-bodhena dvyātmakasya_api vastuno grahaṇam /"

[37] See *NVTT*(K), p. 143.9-11. "sa khalv indriyārtha-sannikarṣād ālocya jātimantaṁ saṁmugdham artham udbuddha-saṁskāra-samupajāta-pūrva-piṇḍānusmṛti-sahāyaḥ prāg eva cakṣuṣo vikalpayati gaur ayam iti"

[38] See *NVTT*(K), p. 127.3. "tad asya nirākaraṇaṁ lakṣaṇa-gatenālocana-jñānāvarodhārthen**āvyapadeśyapadena** sūcitam iti" ("The refutation of this is suggested by the word 'avyavadesaya' in the definition whose purpose is to include ālocana cognitions.")

[39] See *NVTT*(K), p. 143.17-22. "arthau [=jātyadi-dravyau] hi rūpa-rūpi-bhāvena sthitāv api nāpāta-janmanā [= nirvikalpakena] jñānena tathā gṛhītāv, api tv svarūpamātreṇa, na hi yāvad asti tāvad grahītavyaṁ, tena tadekadeśagrahaṇe 'pi nāpramāṇatā / savikalpakaṁ tūkta- sāmagrī-janma jātyādi rūpatayā dravyaṁ ca rūpitayā kalpayet."

[40] See *NVTT*(K), p.144.10-16. "saṁśītir iti / saṁpūrvo hi śīṅ bhāva-pratyayānto viśeṣāpekṣe vimarṣe vartate, sa ca_ekādhikaraṇe smaryamāṇau mitho viruddhau dharmav āropayann anyataran na_avadhārayati / tathā ca_adhikaraṇa-mātra-samarpaṇam indriya-vyāpāro, manasā tu smaraṇa-sahakāriṇaiva puruṣaḥ saṁśete / ata eva visphāritākṣaḥ saudāminī-saṁpātāt sakṛdālocya kaṁ cit sāmānyavantaṁ dharmiṇaṁ samandhakāre saṁdigdhe, tasmān mānasa eva_eṣa saṁśayo, na tv indriyaja ity arthaḥ."

[41] The activation of the specific mental trace pertaining to a specific substance-particular could not have caused by a bundle of attributes alone, because the Naiyāyika does not recognize any special universal or configuration which constitutes or indicates a specific substance-particular. He does recognize the existence and causal efficacy of specific, or particular, substance-particulars.

[42] "vyavasāyātmaka-padaṁ sākṣāt savikalpakasya vācakaṁ, tathā hi vyavasāyo viniścayo vikalpa ity anarthāntaraṁ sa eva_ātmā rūpaṁ yasya tat savikalpakaṁ pratyakṣam." *NVTT*(K), p. 133.9-11.

[43] See *NVTT*(K), p. 138.9-10. "saṁketa-samaya-varty-avasthā-smaraṇaṁ tu_upayujyate, vastunas tadānīntanedānīntanāvasthā-bheda-vata ekasya_indriya-jena vikalpena_ākalanāt." And see *NVTT*(K), p. 138.15-16. "anena hi piṇḍasya pūrvāparāvasthā-vartinīm ekatām indriya-ja- vikalpa-gocaratvena darśayati, na tu śabda-niveśanam api."

[44] For example, the concepts or classes with which humans process color are fairly consistent among all peoples, but the words and their meanings for colors vary drastically from culture to culture.

[45] This last case would be analyzed as the object being inhered in by and thus differentiated by a conjunction (*saṁyoga*) which also inheres in another substance-particular.

[46] This is in fact the direction some later Naiyāyikas went when they added a kind of sense-object connection where one was aware of all instantiations of a universal. See S. C. Chatterjee, *The Nyāya Theory of Knowledge*, pp. 238-48.

[47] The instance is of course the object as it was seen when it was first given a name. It is arbitrary in the sense that there is nothing special about the object itself or its perception at this time. Perhaps because one instance is as good as any other. The fact that it was named is what is special.

[48] See *NVTT*(K), p. 138.9-10. "saṁketa-samaya-varty-avasthā-smaraṇaṁ tu_ upayujyate, vastunas tadānīntanedānīntanāvasthā-bheda-vata ekasya_indriya-jena vikalpena_ākalanāt." And see *NVTT*(K), p. 138.15-16. "anena hi piṇḍasya pūrvāparāvasthā-vartinīm ekatām indriya-ja-vikalpa-gocaratvena darśayati, na tu śabda-niveśanam api."

[49] This approach is acceptable, for just as the Naiyāyika as we will see does not admit of a distinct sentence meaning over and above that of the concatenation of its constituent words so does he not admit of a distinct entity over and above the ontological entities which make it up. A white cow is not distinct from the cow inhered in by the universal cowness and the quality-particular white. (The cow, however, is distinct from the substance parts which make it up.)

[50] This assumes that there has been no internal selection of what components are going to be seen in the savikalpaka stage out of those provided by the nirvikalpaka stage.

[51] "padārtha ekaḥ kriyā vā kārakaṁ vā prātipadikārtho vā padarthāntaraviśeṣto vākyārthaḥ" *NVTT*(K), p. 54.18-19. See also *NVTT*(K), 54.20-55-14

[52] This differs from Diṅnāga's view that the content of a cognition comprehending language is wholly general while the content of the cognition following perception is general but underlain by the particular content of the preceding perception.

[53] See K. Kunjunni Raja, *Indian Theories of Meaning*, pp. 203ff.

This applies to Vācaspati Miśra and most later Naiyāyikas. The *NS* and *NBh* did not discuss the meaning of sentences. They did discuss the meaning of a word as part of a sentence. According to Jayanta Bhaṭṭa, they probably considered the meaning of a sentence to simply consist of the words linked together. See Raja, p. 220. Cf. *NBh* III.2.58.

[54] The account of meaning given in the *NS*, *NBh*, and *NV* pertains only to common nouns. The early Naiyāyika did not treat proper names, adjectives, or verbs, presumably because they felt that their meanings were analogous to those of proper names. Interestingly, an account of their meanings must be more complex. Adjectives and verbs would have demanded a slightly more complex explanation, because they involve quality- and motion-particulars in addition to their own universals and their substrate. And Proper names would have required an alternative account because they are simply the individual substance-particulars, they involve no universals. The correlates of proper names in conceptual cognition are dealt with in Vācaspati Miśra's theory. An individual is recognized insofar as it is cognized to be the common substrate of two sets of attributes.

[55] *NBh* and *NVTT* II.2.67.

[56] See *NBh* and *NV* II.2.63.

[57] See Karl H. Potter, *Indian Metaphysics and Epistemology*, p. 151.

[58] See Potter, p. 149.

It is not much more than a predicate, an open sentence, "x is a cow".

[59] A sentence-embedded word is not a sentence because it expresses but a single piece of meaning. A sentence must express at least two pieces of meaning: a subject

(*uddeśya*) and a predicate (*vidheya*). The meaning of words are in fact simply single predicates or single subjects.

[60] In *NS* II.2.60 a word (*pada*) is defined as a *varṇa* which ends in an affix. While a word (*pada* = *suptiṅanta*) might specify, for example, that its meaning is an object or recipient of an action, it will not specify of what action it is the object or recipient.

[61] "tasmāt padāni kṛtasaṅketāni svārthaṁ smārayitvā ākāṅkṣā-yogyatāsattisadhrīvīnāni adṛṣṭapūrva vākyārthaṁ bodhayanti..." *NVTT*(K), p. 207.2-4. And see *NVTT*(K), p. 56.3-12.

[62] The location of these properties, however, is unclear. Expectancy (*ākāṅkṣā*) is a syntactical notion, appropriateness (*yogyatā*) is a semantic notion, and grouping (*āsatti*) belongs to the physical manifestation.

[63] See chapter two.

[64] 'Composite' is used to emphasis that a physical object includes all of its attributes and is not just the substance-particular substrate. Thus the composite physical object is the object which exists external to cognition at specific time and place and in a certain state and which is cognized in the savikalpaka stage of perception.

[65] "tatra vyapadeśo viśeṣaṇam upalakṣaṇaṁ vā nāmajātyādi, tatkarma vyapadeśyaṁ viśeṣyam iti yāvat / tadyathā ḍittho 'yaṁ gaur ayaṁ śuklo 'yaṁ kamaṇḍalumān ayaṁ gacchaty ayam iti, sarvaṁ hi savikalpakaṁ viśeṣaṇaviśeṣyabhāvena vastuṣu pravartate." *NVTT*(K), p. 125.7-10.

[66] *PS* I.3 (Hattori, p. 240).

[67] Vācaspati Miśra classifies quality-particular and movement-particulars as differentiators. These are perceived as separate from their the substance-particular which is their substrate in the subsequent savikalpaka stage. But he doesn't specify whether they themselves are still differentiated by their universals in the nirvikalpaka stage.

[68] For the five predicates and their illustration see *NVTT*(K), p. 125.7-9.

[69] Vācaspati Miśra does once mention an attribute which corresponds to the substance-particular Ḍittha. He does so because he is passing along the problem of predicables as it was formulated by others before him. In several other places, he makes it clear that when a substance-particular is cognized as a specific substrate, a particular physical object, it is because the percipient has comprehended that the substance-particular substrate which is present is the same one which was seen earlier. See *NVTT*(K), p. 125.7-8.

[70] The example of a white cow walking down a path given in the previous chapter is one.

[71] Vācaspati Miśra does not discuss this predicable separately. This is presumably because it fits the general characterization he develops when he discusses 'this is a cow' and 'this is Ḍittha'.

This example differs from that of Diṅnāga. Diṅnāga uses '*daṇḍī*' and '*viṣāṇī*'. 'Horned' ('*viṣāṇī*'), since it refers to a part of the object, refers to differentiation within an object and not just the differentiation of the object from another.

[72] See *NVTT*(K), p. 119.21-24. "mātra-grahaṇaṁ sambandha-catuṣṭaya-vyāpty-arthaṁ tadyathendriyeṇārthasya sambandha indriyāvayavair arthasyārthāvayavair indriyasyedriyāvayavair arthāvayavānāṁ, na caitanniryyato vinā pṛthvagratāṁ bhavatīti, pṛthvagratā sūcitā"

[73] See *NBh* and *NV* II.1.33.

[74] See *NV* I.1.10. See also *NVTT*, p. 153, where Vācaspati Miśra claims Jaimini's definition of perception is too narrow because it excludes perceptual cognitions of identification.

[75] Its ultimate differentiator (*atyanta-viśeṣa*) is imperceptible.

[76] See *NVTT*(K), pp. 137.25-138.19. See also *NVTT*(K), p. 125.4-7. "kiṁ tu prathamam ālocito 'rthaḥ sāmānyaviśeṣavān saṅketasamayavartinīm ātmano 'vasthāṁ smārayan tatkālabhāvinaṁ śabdam api smārayaty avarjjanīyatayā."

77 *NVTT*(K), pp. 125.9-10 & 125.15-16. "vastunas tadānīntanedānīntanāvasthā-bheda-vata ekasya_indriya-jena vikalpena_ākalanāt" and "anena hi piṇḍasya pūrvāparāvasthā-vartinīm ekatām indriya-ja-vikalpa-gocaratvena darśayati."

78 These two cognitions, even though one refers to the other, cannot be simultaneous, since only one cognition can inhere in the self at a time.

79 See *NVTT*(K), p. 138.7-8. "na tv indriya-ja-vikalpotpādam praty upayogaḥ kaścic chabdasmaraṇasya / anyathā bālamūkādīnāṁ nendriyajaḥ syād vikalpaḥ śābda-smaraṇābhāvāt."

Cf. the position of a realistic ally (probably Kumārila Bhaṭṭa) given approvingly by Vācaspati Miśra: "nirvikalpakena prathamākṣasannipāta-janmanā jātimad-vastu-vedanāt tatra upalabdha-cara-sambandhasya śabdasya samaraṇaṁ, tathā ca tac-chabdābhidheya-jāti-viśiṣṭa-dravyāvagāhi_ indriyārtha-sannikarṣa-janma-vikalpa-pratyayo gaur ayam ity evam ākāro jāyata" *NVTT*(K), p. 135.1-5.

80 See *NVTT*(K), p. 125.11. "śabdas tu saṁpātāyāto na niveśayaty ātmānam indriya-je vikalpe."

81 *NVTT*(K), p. 138.7-8

82 I'm afraid that it is just as likely that Vācaspati Miśra did not think through his position that one recollects the object as it was when its name was learned.

83 This is my understanding of the phrase "pūrva-piṇḍa" *NVTT*(K), p. 143.9-11 "sa khalv indriyārthasannikarṣād ālocya jātimantaṁ saṁmugdham artham udbuddha-saṁskāra-samupajāta-**pūrva-piṇḍā**nusmṛtisahāyaḥ prāg eva cakṣuṣā vikalpayati gaur ayam iti." Cf. "savikalpakasya pratyakṣatvasiddhau yathā śabda-smaraṇa-**pūrva**-gṛhīta- **piṇḍā**nusandhānādayo na_indriya-vyāpāraṁ vyavadadhatīti." *NVTT*, p. 211.13-16.

84 See *NVTT*(K), p. 143.9-11.

85 See *NVTT*(K), pp. 134.25-135.6.

[86] These two cognitions, however, cannot be come into existence together, since the mind (*manas*) will not allow two cognitions to arise in the self (*ātman*) at the same time.

[87] see *NVTT*(K), p. 138.7.

6
Some Philosophical Implications

In order to incorporate conception into the Nyāya theory of perception Vācaspati Miśra introduces two stages of perception, each with their distinctive contents. In this chapter we will examine how substantive the difference between these two contents is and what the philosophical implications of this difference are for Nyāya realism. First we will explore possible interpretations of the difference between the content of the two stages. Then we will examine whether or not every portion of the content is determined by the object as connected to the sense, or the sense-object connection. And finally we will examine whether or not every portion is cognized immediately.

The problems of perception and their solutions can be classified as metaphysical and epistemological, though they are seldom ever formulated as completely independent of one another. Vācaspati Miśra, like most Naiyāyikas, did not make a conscious effort to treat them individually or even to differentiate them completely. I shall, however, treat them individually for the purposes of exposition and analysis and shall in the last chapter bring them back together and examine their interrelationships. In this chapter we shall examine Vācaspati Miśra's metaphysical account of perception. In later chapters, we shall return to his epistemological account of perception and its relationship to his general epistemological theory.

Vācaspati Miśra first characterizes the difference between the contents of the nirvikalpaka and savikalpaka stages of perception as the presence and absence of the differentiation of the components. He later adds that another difference is the presence

and absence of past instances of the objects and perhaps instantiations of their attributes. We shall briefly examine the nature of these differences in this section before we go on to look at the implications of these differences. We shall begin by examining the nature of the difference in the presence and absence of the differentiation, disregarding for the time being the past instances and instantiations.

We have seen that while there are two stages of perception, there need not be two qualitatively different kinds of awareness in each of these two stages as some have suggested.[1] For there is no recognition in the nirvikalpaka stage, unlike the recognition of sense-data found in most sense-data theories. Individual components are not recognized for what they are[2]. They do, however, trigger specific memory traces (which lead to recognition). The recognition in the savikalpaka stage lies not in the kind of awareness, but in the kind of content – in the association of current components with past components.

The essential difference between the content of these two stages is not simply a matter of cognitive assertion. The content of the savikalpaka stage is not the assertion of what was merely entertained in the content of the nirvikalpaka stage. There is not a single fact or set of objects which is entertained in the nirvikalpaka stage and then asserted in the savikalpaka stage. If the informational content of the two stages were the same, then the difference of assertion between the two contents would have to lie solely in the presence and absence of the differentiating relationship between the components.

The difference is not a matter of form. There is not a difference in form in the content of the two stages and yet an equivalence of information. Not all of the information which is manifested in the savikalpaka was already manifested in the nirvikalpaka stage. Such an interpretation might be supportable if the content of perception were restricted to single objects, to single substance substrates. In such a case, any information specifying what the substrates of the various universals would have to be derivable from the possibilities dictated by metaphysical laws (supposedly

known by the percipient) and from the fact that there is but one basic substance substrate. All universals which are metaphysically required to reside in substrates would automatically be cognized as inhering in the single substrate given. And all universals which are required to reside in quality- or motion-particulars would be cognized as inhering in the appropriate quality- and motion-particulars which are given. This assumes already that the universals will be restricted to certain particulars. The quality- and motion-particulars would be cognized as inhering in the only substrate given. No selection of substrate for them would be necessary. This sort of interpretation, however, becomes much more difficult to sustain when the content of perception is acknowledged to contain several objects, and thus multiple substance substrates.

Can the information contained in the full content of the savikalpaka stage be conveyed solely in the components of the content of the nirvikalpaka stage? If the mechanism which arranges the content of the savikalpaka stage assumes that there is but a single referent to which all of the attributes cognized will be predicated, additional information regarding what is predicated of what is not necessary. Given this assumption, the cognition of several components in themselves would allow one later on to cognize predication and coreference (such as x is both F and G) involving these components. With the cognition of several components one might cognize predications such as "something is an ox" or "there is something white," or the coreference of two attributes such as "that which is an ox is white," or perhaps even "the ox is horned."[3]

But such a mechanism could not carry out its function if there were among the components more than one substance-particular substrate which has attributes. Relations (such as x possesses y) the relata of which each have their own attributes could not be handled. One could not cognize such relations as "the white ox is black-horned" or "the white ox has a black collar." For the assumption of one referent, or substance-particular substrate, cannot handle these cases – relations and more than

one referent. And yet even the assumption of two referents, for example, could not tell the mechanism how to sort them out: which attribute goes with which referent.

In order to deal with such cases the information as to what is predicated of what would have to be contained in the components themselves. The following would have to be the case. Abstract universals cannot specify their substrates; otherwise, they would not be repeatable. So a substance-particular would have to specify its universals. However, it cannot specify its quality- or motion-particulars since they change from time to time. The quality-particulars and motion-particulars would instead have to specify their universals. This assumes quality- and motion-particulars are unable to change their universals, in which case universals might be redundant. They would also have to specify their substrates. And this assumes they would be unable to reside in a second substrate.

But this does not agree with Nyāya metaphysics. According to the Naiyāyika quality-particulars are only differentiated by the universals which inhere in them and substance-particulars are only differentiated by the universals and quality- and motion-particulars which inhere in them.[4] The components of an object do not bear their relationships with each other in their own nature.

We have seen that there is a significant informational (or organizational) difference between the content of the nirvikalpaka stage and that of the savikalpaka stage (even when those components which refer to past states are excluded). This information is not one of the ontological components cognized nor is it spread out among all or any of these components. It is something else.

There are thus two significant differences between the content of nirvikalpaka and that of savikalpaka perception: the network of differentiating relationships and the instances and instantiations of the objects and their attributes in the past. Because the content of the nirvikalpaka stage lacks the differentiating relationship, it refers to less than the physical object which is present. And because the content of the savikalpaka

stage includes past instances and instantiations, it refers to more than the present physical object. Vācaspati Miśra's innovative response appears problematic for a realist. The content of savikalpaka perception refers to more than the present object and might be idealistic. The content of nirvikalpaka perception refers to less and may be an inadequate, foundation for knowledge. We have seen that the lack of any differentiating relationships in the content of the nirvikalpaka stage is indeed substantive and believe that Vācaspati Miśra should explain why it is not an inadequate basis for supposedly unconstructed savikalpaka perceptual knowing and ultimately for all of the other forms of knowing. (This will be returned to in the next section and in chapter seven.) The presence of past instances in the content of savikalpaka perceptions, on the other hand, is less problematic.

Most realist theories stipulate that the content of a perceptual cognition not refer to more than the real, external physical object currently being perceived. Vācaspati Miśra's theory, however, allows just that. The content of a veridical savikalpaka perceptual cognition refers to the current physical object as well as to a past state of the current object (and perhaps past instantiations of its attributes too). Vācaspati Miśra's theory, however, remains realist in accordance with the Nyāya tenet regarding the content of cognitions. The Naiyāyika holds that the content of all cognitions is without a form of its own (*nirākāra*), the form cognized is of the external object itself. Thus the totality of the content (or at least all of the components in the case of erroneous cognitions) refers to real, external objects (or components). In the case of veridical perceptual cognitions, none of the content fails to refer to the real, external world. Thus the content of veridical savikalpaka perceptual cognitions refers to more than the current physical object – its past states – but it still refers only to the real, external world.

Thus there is a substantive difference between the content of the nirvikalpaka and savikalpaka stages of perception. The network of differentiating relationships between the components of the objects which are connected to the sense and which are

contemporary with the perceptual cognition is not found in the content of the initial stage of perception in any way. The past components and differentiating relationships of the objects which are recollected are also not found here. Though the contemporary differentiating relationships as well as the past components and differentiating relationships are not seen initially, they are, nevertheless, pieces of the real, external world. But are these differences, especially the network of differentiating relationships pertaining to the contemporary object, both causally determined by the sense-object connection (or object as connected to the sense) and cognized immediately?

We will now examine whether all or part of the content of each stage of perception is determined by the sense-object connection.[5] The content of veridical perceptual cognition as given by the earlier Naiyāyika is according to our analysis totally determined by the sense-object connection, or the object as connected to the sense. We will find that while all of the content of nirvikalpaka perceptual cognitions of Vācaspati Miśra is also determined by the sense-object connection, only part of the content of savikalpaka perceptual cognitions is so determined. First we shall develop a general formulation of this crucial element of a causal theory of perception, the notion of causal determination.

Causal Theory of Perception

A causal theory of perception states that a necessary condition for a cognition to be perceptual is that there be a causal connection between it and the world. This condition captures the intuition that the major difference between perceptual cognitions and other cognitions is the fact that perceptual cognitions reflect the world because the world causes them to do so. For example, when one sees a cow, the cognition of the cow is caused, at least in part, by the presence of the cow.

We may refine this by making the connection between the world and a perception of it more specific. This can be done by putting the connection in terms of cognitive

reference and causal determination. We then find that a causal theory of perception states that the content of a veridical perception is causally determined by that to which it refers.[6] The object which is responsible for the nature of the content of a perception is the object which the content is all about. For the realist who believes that physical objects exist independent of their being cognized the causally determining object and the cognitive referent are one and the same physical object.[7] The external physical object which is cognitively referred to by a perceptual cognition is the same object which causally determines the content of perceptual cognition of it.

Determining Causes and Non-determining Causes

Out of the causes which are necessary for the production of an effect, some are determining causes and the others, non-determining causes. These causes may range from a single cause to a complex of conjunctions, disjunctions[8], negations, etc. (And in this general formulation they may be remote as well as contiguous.[9]) Those causes which are correlated to the set of effects in question alone and which distinguish the effects of this set from all of the other effects in the universe under consideration are determining causes. Those which are not so correlated and do not distinguish the set in question from others are non-determining causes.[10]

The determining causes of a specified set of effects are specially correlated with this set of effects; they are peculiar to the causal complex of the effects in question. A causal complex without the appropriate determining cause cannot lead to an effect in the set in question. They are responsible for producing an effect from the set in question rather than one from any other and in this way determine what the nature of the effect will be.

The non-determining causes of a specified set of effects are common to complexes which lead to other effects. Those causes, single or compound, are entailed by one or more of the other causes, single or compound, and are excluded from the roster of

determining causes. A causal complex necessarily contains these non-determining causes whenever it contains certain other causes – determining causes – but not *vice versa*.[11] Hence, they cannot distinguish the effect in question from other effects.[12] They are necessary for the production of these effects, but they do not determine their nature.

A determining cause *as a unit* is not in itself involved in the causation of effects other than those in question. Though components of a determining cause may in many cases be involved. Non-determining causes, on the other hand, are involved in the production of other effects as well as the set in question. They can form part of different complexes which lead to different effects.

Causal determination applies within a specified universal set of effects. Each universal set differs in the effects included. And each is differentiated by the nature of its effects, by the properties which the various effects share and don't share with each other. These properties and the corresponding effects are linked naturally to certain causes according to what subsets of causes produce what subsets of effects. Determination is in a sense relative – it depends on the composition of the universal set which is under consideration.

Because of the basic nature of causation, effects may be sorted according to their causes. The most salient characteristics of causation here are the uniformity of causation, the complexity of causes, and the plurality of possible causes. Causation is uniform; similar causes produce similar results. Causes are complex; an effect is generally the result of a multitude of causes. And effects may be the result of different possible causal complexes, a plurality of complexes; the same (kind of) effect may result from different causal complexes, but no complex can lead to more than one (kind of) effect. As a consequence of these characteristics, the effects of a specified set can be sorted into various subsets according to the causes which lead to them. Certain causal complexes uniformly lead to – directly or via causal chains – certain sets of

effects. Some causes may lead to the same effects, (though different effects do not follow from the same cause). Thus some of the sets of effects are derived from more than one kind of causes. Every set of effects can be generated only by a limited number of causal complexes. It is according to these causal complexes and their component causes that the various sets of effects can be sorted.

The Identification of Causal Determination

Let us now turn to a general procedure which we will use to establish which sets of effects are determined by which sets of causes. This will take place within the specified universe of effects under consideration. First the property whose determining cause or causes it is which we want to find out should be specified. Then the set of effects within the universe under consideration which include this property should be identified. Then the causal complex or complexes of this set should be figured out. (This will usually include conjunctions, disjunctions, negations, etc. of causes.[13]) Finally those causes which the set of effects in question shares – as characterized above – with other sets, the non-determining causes, should be excluded. Thus those causes in the complex which are found to be logically entailed by the others in the complex are excluded, for the determining efficacy of the other causes remains upon their exclusion.[14] Those causes which remain are those which alone define or distinguish the set of effects under consideration, the determining causes of the set in question. These causes determine that the effect produced will be one of the effects in the set of considered effects, and in this way these causes determine the nature of the effect.

Now let us find the determining causes for the four kinds of constituents of the content of veridical savikalpaka perceptual cognitions: the components of the contemporary object, the network of differentiating relationships pertaining to these

components, the components of the past instances and instantiations, and the network of differentiating relationships pertaining to these components.

First we will look for the determining causes of the cognition of the components which belong to the object currently being cognized. The cognitions whose content contain contemporary components include perceptual cognitions, inferential cognitions of contemporary objects, cognitions of comparison, and perhaps others. In order to avoid an unwieldy comparison (to identify determining and non-determining causes) we shall limit our comparison to a distinct subset of the set under consideration, to veridical perceptual cognitions. This will not give us all of the possible causes of all of the effects under consideration and thus may not give us all of the possible determining causes of all of these effects, but it will give us all of the determining causes for the subset in question, in this case perceptual cognitions.[15]

If we now contrast this subset to a different subset of the universal set, one which contains no cognitions whose content includes components of contemporary objects, such as recollections, we find that the self-mind conjunction, the mind-sense conjunction, etc. are causes common to both sets. They are thus not determining causes of perceptual cognitions. We find that the sense-object connection, on the other hand, is not common. After all of the other common causes are excluded, the sense-object connection remains. The sense-object connection is the determining cause of the cognition of components of a contemporary object in perceptions.

Let us now find the determining causes of the cognition of the network of differentiating relationships pertaining to the object currently being perceived. (We will again limit our comparison to veridical perceptual cognitions.) The veridical perceptual cognitions whose content includes these differentiating relationships are those which are savikalpaka. The causes of a veridical savikalpaka perceptual cognition are the self-mind conjunction, the mind-sense conjunction, the sense-object connections, etc. as well as the recollection triggered by the prior, nirvikalpaka perceptual cognition. The

self-mind conjunction, the mind-sense conjunction, the sense-object connections, etc. are common to both those cognitions whose content includes the network of differentiating relationships pertaining to a contemporary object and those which do not. They are thus not determining causes for these cognitions. The remaining cause, which is not common to both, is the recollection. Thus recollection triggered by the prior, nirvikalpaka perceptual cognition is the determining cause of the cognition of components of past objects.

Finally let us ascertain the determining causes of the cognition of the components belonging to the past instances and instantiations and the network of differentiating relationships between them. Those cognitions whose content contains the components of past instances and instantiations as well as the network of differentiating relationships are again savikalpaka perceptual cognitions.[16] The causes of those cognitions whose content includes components of past instances and instantiations and their network, savikalpaka perceptual cognitions, have already been discussed, as has the determining cause, the recollection triggered by the preceding, nirvikalpaka perceptual cognition. The recollection triggered by the preceding nirvikalpaka perception cognition is the determining cause for all of the content of the savikalpaka perceptual cognition which is not already found in that of the nirvikalpaka cognition. The determining cause of the cognition the past instances and instantiations and their network in veridical savikalpaka perceptual cognitions is naturally the preceding recollection. Other cognitions whose content contains components of past instances and instantiations and their network, some non-perceptual cognitions, might have different determining causes, but they are not here our concern.

Now that we have found which constituents of the content of perceptual cognitions are causally determined by the physical object as connected to a sense and which are not, let us return to the question of whether or not Vācaspati Miśra's theory of perception is fully a realist's causal theory of perception. That is, are all of the constituents of the

content of each perceptual cognition causally determined by the objects to which they refer?

As we have seen, every constituent, past or present, of every veridical perception, nirvikalpaka or savikalpaka, refers to the external, real world. There are no constituents which do not properly refer, for according to the Naiyāyika the content of a cognition is the form of the external object itself.[17] Thus there should be no constituents which are determined by that to which they refer, but which are determined by some non-external object.

The components seen in the nirvikalpaka stage of perception cognitively refer to the components of the physical object being perceived; they are, in fact, identical to them. And as we have just found the cognition of these components is causally determined by these very components as well. Thus for nirvikalpaka perceptual cognitions the content is entirely determined by that to which it refers.

While the entire content of a savikalpaka perceptual cognition refers to the external world, there are portions of that content which may not be determined by that to which they refer. A portion of the content which refers to the current external object, the network of differentiating relationships, is not determined by that network. This portion is thus not determined by that to which it refers. This is a significant cause for concern for the realist. It derives from Vācaspati Miśra's incomplete account of the causal relationship between the sense-object connection and the resulting cognition of the object. Another less crucial portion of the content may also not be determined by that to which it refers, the past instances and instantiations of components of the object and the network of differentiating relationships. It is acknowledged by the Naiyāyika that the content of savikalpaka perception includes references beyond the current object. This is acceptable as long as they are determined by these referents. And they may be, if remote determination is accepted. Thus that portion of the content which refers to the instances and instantiation of the past object may be determined by their referents. But

even if the content of the recollection of and perception of the instances and instantiations of objects as past might be determined by that to which they refer, if indirect determination through causal chains is permitted, the current network of differentiating relationships still will not be determined by the differentiating relationship of the current object to which it refers, either directly from a sense-object connection to a savikalpaka perception or indirectly from a sense-object connection through a nirvikalpaka perception and a recollection to a savikalpaka perception.

Thus there is a portion of the content of savikalpaka perceptual cognitions which is not determined by the object to which it refers. Consequently, Vācaspati Miśra's theory of perception is not fully a theory of direct realism.

Cognitive Immediacy

The answers to the two primary metaphysical problems of perception - is there an external world and what do we directly access in our perceptions - give rise to three broad kinds of theories: direct realism, indirect realism, and phenomenalism (including idealism). The Naiyāyika is a direct realist and as such he shares with the other direct realists two major interrelated yet distinct theses, the direct realist's responses to the metaphysical problems of perception. We shall here discuss the second thesis, the first already being extensively explored in the literature.[18] The two theses are:

1) There is an external world composed of physical objects which persist independently of being perceiving. (According to this thesis alone: these physical objects may or may not have those properties which we perceive them as having.)

2) We directly perceive physical objects and we perceive them as having only those properties which they in fact do have. (According to this thesis alone: the physical objects may persist independently of our perceiving them or they may not.)

The second thesis, the thesis concerning direct perception, can be broken down and put into the following definitional form[19]:

I) *S* **directly** perceives *p* at time *t* =df

1) *S* **immediately** perceives *p* at *t*,

2) *p* exists at *t*, and

3) if *S* at *t* were to immediately perceive *p*,

then *p* would appear to *S* at *t* as it (really) is at *t*.

This definition is a general, relatively system-neutral, definition which will be useful as an evaluative and critical tool. Note that in this definition I have used the words 'direct' and 'immediate' in different though related senses. A direct perception implies an immediate perception, but not *vice versa*. Immediate and mediate perception will be the main topic in this section.

The distinction between immediate and mediate perception, central to a theory of perception, depends on a clear and accurate definition of immediate and thereby mediate perception. Usually, the definition of immediate perception (and of mediate perception) has been left implicit or defined only minimally. Not infrequently, when attempts have been made to frame a definition, presuppositions or preconceptions as to what should qualify as immediate and mediate perceptions are accommodated by that definition. Or certain unconventional, e.g. non-Western, types of perceptions or their characterizations and their objects are overlooked. Such definitions, naturally, do not always fit the theories cast in the terms of other traditions.

As a consequence, we have no unanimous neutral definitions of immediate or mediate perception with which to examine and evaluate the characterization of perception by of Vācaspati Miśra. We shall have to use, then, flexible working definitions. I shall start out with a definition of mediate perception, since I shall define immediate perception in terms of mediate perception. It is a very broad intuitive definition of mediate perception. This definition of mediate perception is close to, though somewhat broader than several contemporary definitions, such as those by Cornman and Jackson.[20] Thus, most any cognition which is covered by their definitions

should also be covered by this one, though not *vice versa*. If we find in using this broad of a definition that Vācaspati Miśra's theory of savikalpaka perception would not be classified as a mediate perception, then we shall not need to narrow the definition any further for our purposes, for Vācaspati Miśra's belief that savikalpaka perception is immediate would be confirmed. If, however, we find that savikalpaka perception as defined by Vācaspati Miśra would be classified as a mediate brand of perception, then we shall clarify the reasons why it is or whether modifications of the definition are in order.

Our working definition of mediate perception is:

IIa) *S* **mediately** perceives *p* at time *t* =df

1) *S* is perceptually aware of *p* at *t*, and

2) it is true that

S would not be aware of *p*,

if *S* were not aware of something other than *p*, that is, *d*.[21]

If we put this into terms of the Nyāya system we get the following analogous definition:

IIb) There is a **mediate** perceptual cognition of *p* which inheres in *S*'s self, *A*, at time *t* =df

1) there is a perceptual cognition of *p* which inheres in *A* at *t*, and

2) it is true that

there would be no cognition of *p*,

if there were no cognition of something other than *p*, *d*.

Since we will assume that a perception is either immediate or mediate, we shall define immediate perception in terms of mediate perception – it is any perception which is not indirect. This will give us the following definition of immediate perception:

IIIa) *S* **immediately** perceives *p* at time *t* =df

1) *S* is perceptually aware that *p* at *t*, and

2) it is false that

S would not be aware that *p*,

if *S* were not aware of something other than *p*, *d*.

And when we put this in Nyāya terms we get the following analogous definition:

IIIb) There is a **immediate** perceptual cognition of *p* which inheres in *S*'s self, *A*, at time *t* =df

1) there is a perceptual cognition of *p* which inheres in *A* at *t*, and

2) it is false that

there would be no cognition of *p*,

if there were no cognition of something other than *p*, *d*.

The definitions as they stand do not specify whether or not the perception of *p* and the perception of *d* must be distinct perceptions – the definitions, in fact, apply whether there are two distinct simultaneous or sequential perceptions or a single unitary perception. As we have seen, the Nyāya process of perception consists of two stages – a nirvikalpaka perception and a savikalpaka perception. Together the stages are thus subject to an analysis using this definition and it is this which will occupy most of our effort.

Vācaspati Miśra distinguishes two stages in the process of perception. In doing so, he incorporated his own version of the then-current distinction between nirvikalpaka and savikalpaka cognitions and attempted at the same time to maintain a strong realist position. This sort of two stage distinction is not found in traditional Western realist theory.

The realist who wants to retain the intuition that we truly are immediately acquainted with the physical objects of the external world usually avails himself of one of two positions in addressing the problems of perception. The first, the most straightforward position, is that the cognition in which we are aware of physical objects

and which we ordinarily think of as perception is, indeed, perception. There are no grounds for the positing of another prior stage and the labelling of it as the actual perception. The second position retreats a bit and admits that what we ordinarily consider perception is not really so. It is not what it appears to be. It is rather a stage or aspect derived somehow through some sort of mental processes or construction from a prior cognition and it is this (logically, temporarily, or causally) prior cognition which is, in fact, the actual perception. The former position, of course, requires deft responses to the arguments which gave rise to the problems of perception in the first place.[22] The latter position yields ground to some of the paradoxes which may continue to trouble the former position, but claims to still preserve its realist anchor in the external world.[23] But it must admit, at the very least, that our intuition of what constitutes perception is erroneous.

Vācaspati Miśra follows his intuitions and chooses to stay the course. He maintains that that cognition which is ordinarily considered to be perception actually is a form of perception. He anchors his realism, however, via a prior form of perception, thus admitting that there is another sort of perception, in addition to what is ordinarily considered perception. Thus, for the Naiyāyika perception is a two stage or a two part process. While claiming that these two stages both take the same object as their contents and denying that there is anything mental imagined or added, they, nonetheless, hold that these two perceptions and their respective objects are not redundant – they are not interchangable.

This is not to say that all savikalpaka *cognitions* must have a preceding nirvikalpaka cognition. Dreams, hallucinations, fantasies, etc. generally lack a corresponding nirvikalpaka cognition, as do all veridical cognitions besides veridical perception.[24] And they usually arise spontanteously, without necessarily a prior, cognition. So, if our definition II were expanded so as to be applicable to cognitions in general (and not just perceptions), then dreams, etc. would be immediate cognitions, in

that it is false that there would be no cognition of *p*, if there were no cognition (of any object) *d*, since these cognitions would not invariably be preceded by a cognitions.[25]

Perceptual cognitions are different from all other cognitions, however. All those savikalpaka cognitions which are considered to be directly caused by a sense-object connection, veridical as well as erroneous perceptions, necessarily have a preceding nirvikalpaka perception. That is, there is no savikalpaka perceptual cognition without there also being a nirvikalpaka perceptual cognition. Thus, the subcategory of perceptual cognitions is not devoid of the possibility that some of its members, savikalpaka perceptual cognitions, are mediate cognitions and so will be investigated.

To round this out, I might here add that there are times when a nirvikalpaka *perception* is not followed by a savikalpaka perception. And, of course, the fact that a nirvikalpaka perception is not invariably followed by a savikalpaka perception shows that it is immediate according to our definition.[26]

To summarize: all veridical and veridical savikalpaka perceptual cognitions have a (preceding) nirvikalpaka perceptual cognition and this leaves it open as to whether they are immediate or mediate. Some nirvikalpaka perceptual cognitions do not have (following) savikalpaka perceptual cognitions and so they are in general immediate.

Immediacy and the Cognition of Individual Constituents of the Object

Now let us take a look at these definitions, especially II. The restriction that *p* be something other than *d* is obviously basic and yet important. There are no problems if we are dealing with single perceptions. If there is only a single object, *p*, there is no question of there being an mediate perception. If there are two distinct objects, *p* and *d*, then (either) one of them might be mediately perceived according this definition III, and so this possibility is open to examination. If we are dealing with two perceptions, however, the situation is different. If there are two distinct objects, *p* and *d*, then once again one of them might be mediately perceived. But if there is but a single object, *p*,

the situation turns out not to be so clear cut. And this certainly applies to Vācaspati Miśra's theory. One might ask how one could have two perceptions with one and the same object? Here it is a question of what one means by "same object". It is a question concerning the conception of identity as well as the entities which are purportedly identified.

In the first section of this chapter we found that indeed the content of savikalpaka perceptual cognitions is substantively different from that of nirvikalpaka perceptual cognitions. While the components of the object connected with the sense are purportedly the same in the content of both stages, the differentiating relationship pertaining to these components is distinct from these components and is not cognized in the nirvikalpaka stage at all. The past instances and instantiations brought forth from memory and the network of differentiating relationships pertaining to them are also not cognized in the nirvikalpaka stage, but only in the savikalpaka stage. According to the Naiyāyika each one of these refers cognitively to, strictly, is identical to a portion of the real, external world. The issue is whether or not all of these are cognized immediately?

Let us look at each of the constituents of the content of perceptual cognitions. The components of the contemporary object cognized in the first, nirvikalpaka stage of perception are cognized immediately. There is no cognition prior to this stage in which any other objects could be cognized. And in this stage of perception there are no other objects which differ from these components in such a way that they could serve as intermediaries to them. There are no intermediaries such that the percipient would not perceive a component, were the percipient not to perceive these intermediaries.

The components of the contemporary object cognized in the nirvikalpaka stage are cognized immediately, but what about these components when cognized in the savikalpaka stage? This depends on whether or not the components which are cognized in the nirvikalpaka stage are identical to those in the savikalpaka stage. If they are, then

the components cognized in the savikalpaka stage can be considered to cognized immediately.

This assumes that there is some form of identity between the components cognized in the nirvikalpaka stage with those in the savikalpaka stage, two phenomenological objects. The Naiyāyika accepts this insofar as the objects are in fact cognized components of one and the same external object. Thus if the components are identical, there is no other object for their cognition to depend on. Phenomenologically, however, if there is no recognition or classification of them, their appearances must be different.

But whether or not these components are cognized immediately in the savikalpaka stage is relatively unimportant, since these components are cognized immediately in the nirvikalpaka stage. What is important is whether or not the overall physical object or its configuration of differentiating relationships are cognized immediately.

As we saw, the relationship of qualification or differentiation (*viśeṣaṇa-viśeṣya-bhāva*) is distinct from the components it relates. Though it is not a true relation, it does bear information (different from the components) which is abstracted from the overall physical object. It is also not cognized in any form in the nirvikalpaka stage of perception. Its cognition in the savikalpaka stage of perception depends on cognition of its components in the prior, nirvikalpaka stage. That is, it is true that the percipient would not perceive a particular differentiating relationship, were the percipient not to perceive the components it relates. It is thus cognized mediately.

The cognition of the past states of the object (and perhaps past instantiations of the attributes) as well as the network of differentiating relationship pertaining to them is properly mediate. They are first mediately cognized in the recollections triggered by the nirvikalpaka stage of perception and they are then cognized mediately once again in savikalpaka stage. The percipient would not perceive these past states, if he or she were not to perceive the current components (in the prior stage).

Thus the substance substrate (*dravya*) is perceived immediately. But the current physical object, the substance substrate as furnished with its current attributes (*jātyādimadartha* or *jātyādimaddravya*), is at least partially perceived mediately. The current overall configuration of the physical object, the network of differentiating relationships (*viśeṣaṇa-viśeṣya-bhāva*) is cognized mediately.

The general definition of immediate perception as it stands has an obvious potential weakness – whole or collective entities and their component parts or members cannot both be immediately perceived. The whole will have to be mediately perceived while the other is immediately perceived, because we have here two distinct objects of perception, one of which would not be perceived, if the other one were not perceived.

This implication of the definition is useful in that it rules out a situation where one object is visible and the other is not. We cannot be said to cognize immediately, for example, a tiger when all that is visible is moving tall grass. We can only cognize the tiger mediately by inference after cognizing the moving grass immediately. But, unfortunately, it may also rule out cases where both objects are in some sense (simultaneously) visible. This is most glaring in cases where both a whole and its parts are simultanously perceived. This means that we cannot perceive a person immediately, since we see the frontal part of his trunk, legs, head, etc. For we would not perceive the person as a whole, if we were not to perceive some of its parts.

The Naiyāyika holds that these different experiences are based on a difference in the world. He claims that in addition to the parts and members, there are whole entities which exist over and above these parts. And we can perceive them as such. Thus, when we look at a branch of a tree, we may simply see the branch. Or we may see the tree as well as the branch. These are distinct experiences with different contents. In the latter case, there are not two synthesized yet distinct cognitions: a perceptual cognition of the frontal surface of the branch and the subsequent inferential cognition of the tree

as a whole.[27] There is rather a single cognition of the whole as a separate entity inhered in by the part.

It seems then that the definition as it stands, without amendments, would rule out the immediate perception of wholes as it is understood by the Naiyāyika.[28] But the Naiyāyika does not hold that the cognition of a whole can only follow the cognition of some part of it. He claims that there are times when one will perceive the whole without also perceiving any of its parts. We see pots without also discerning their component halves and we see garments of cloth without noticing the individual threads. In such cases it is false that there would not be the cognition of a whole, if there were not the cognition of a part. Thus the cognition of wholes can be immediate.

A portion of the physical object currently being cognized in a savikalpaka perceptual cognition is not cognized immediately and is not causally determined by the object to which it refers. That portion is the difference between the nirvikalpaka stage and savikalpaka stage of perception. It is a substantive difference and the fact that it is neither immediately cognized nor causally determined by its own referent is significant for a realist causal theory of perception. Thus Vācaspati Miśra's theory of perception is not fully a theory of direct realism or a causal theory of perception.

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[1] Although there are those who feel that there can be no cognition without some form of recognition or classification (Chisholm, for example), the Naiyāyika accounts for recognition in terms of the content and holds that awareness can thus function without recognition. Content which does not embody recognition will thus be cognized without recognition.

[2] They are recognized, however, in the sense that they trigger the appropriate memory trace. This is not (yet?) on the cognitive level.

[3] This would assume that none of the attributes of the horn are cognized, or none of the ox. Strictly speaking, if the relations perceived are ordered, they could not kept straight, without *particular* knowledge in addition to the general laws.

[4] A substance-particular is not, for example, a cow until it is inhered in by the universal cowness. And before it is differentiated by cowness, it does not exist. *NV* III 2 62. The Naiyāyika seems to hold initially that the constituents of a physical object are elements or aspects of that object rather than independent entities. He is forced later (after Vācaspati Miśra) to concede that the components may exist independently – though only for a moment – to answer certain objections. See D. N. Shastri, *Critique of Indian Realism*, pp. 288-93.

[5] We will use sense-object connection and object as connected with the sense interchangeably in the next sections. While there is a difference, they function virtually the same for our purposes. The object as connected is that portion of the object as a whole which is connected to the sense at a particular time. It is thus a view of one time-slice of the object.

[6] Cf. the formulation of a causal condition for knowledge found in Fred Dretske and Berent Enc, "Causal Theories of Knowledge," p. 517.

[7] This condition is not limited to realistic theories. If it is detached from the tenet that the referent of perceptual cognition (or the determining cause) is a portion of

the real, external world, this condition can be integrated into a non-realist theory of perception.

[8] An effect may be determined by different causes at different times, under different circumstances. Thus the determining causes may include or consist of a disjunction of causes. But this assumes the plurality of causes.

[9] Though the Naiyāyika does not approve of remote causation or remote determination, this general characterization does provide for remote determination if causes are allowed to be remote as well as contiguous. As I understand it determination can be remote, whether or not causation is. If remote causation is not permitted and the term 'cause' reserved for contiguous causes, a definition of causal determination could instead be formulated simply in terms of correlation – similar to that of causation, but with no restrictions on the time of the correlated factors.

[10] These were earlier also called productive causes; here I shall simply call them non-determining causes.

[11] Suppose that the cause for a certain effect in the set in question is $a(b \vee c)$ and that ad is the cause for an effect not in the set. Then a is common, is entailed by $b \vee c$, and is a non-determining cause. The determining cause, on the other hand, is the disjunction $b \vee c$.

Suppose that the determining cause for a certain set of effects is ab where a includes b (and not *vice versa*). The cause a would be non-determining and b would be determining. And suppose that the determining cause for another set of effects is abc where $ab(-c) = 0$, $(-a)b$ and $a(-b) \neq 0$. The causes c, a, and b would be non-determining, while ab would be determining.

[12] They can, however, distinguish a superset of the effect in question from other sets of effects.

[13] While a set of effects may be causally determined by a disjunction of causes, a particular effect is actually determined by particular disjuncts.

[14] Those causes which might distinguish effects among the set in question are already excluded – unless they are a disjunct in a disjunction which is a determining cause – because they would not reckoned to be a cause of the set in general.

[15] This is possible because some or all of the causes of a specific set of effects may be a disjunction of causes. Each side of the disjunction separately leads to a different subset of the effects. In many cases these effects are not qualitatively differentiated from one another, though they can be distinguished by means of their causes. Thus different subsets of a specified set of effects may have different causes and perhaps also different distinguishing causes.

[16] Here again we are limiting our comparison to perceptual cognitions. Unlike cognitions whose content contains the network of differentiating relationships which pertain to contemporary objects, there are other cognitions whose content contains past components and their relationships which are not perceptual, but they are not here our concern.

[17] Erroneous perception, however, may not fully refer to the external world, past or present. The particular arrangement of components may never have occurred (or been cognized) before, in which case the corresponding portion of the perceptual content would have no external referent. See chapter five.

[18] See, for example, Sadananda Bhaduri, *Studies in Nyāya-Vaiśeṣika Metaphysics* and Jadunath Sinha, *Indian Realism*, chapter VII.

[19] This definition is close to the basic version of Cornman. The modifications which Cornman subsequently makes to it are not relevant here and are disregarded. James W. Cornman, *Perception, Common Sense, and Science*, p. 219-24. See also Maurice Mandelbaum, *Philosophy, Science, and Sense Perception*, p. 118-119.

[20] See Cornman, p. 8 & 221-3 and Frank Jackson, *Perception*, p. 15-20. Jackson, however, feels that his definition cannot be reduced to a counterfactual. I disagree.

[21] Note that this definition concerns itself with cognitive mediacy only. A perceptual cognition which is dependent on a prior perception which is understood as the *physical* grasping of the object is not considered to be cognitively mediate.

[22] The former position is that of the earlier Naiyāyikas.

[23] The later position is basically that of Diṅnāga.

[24] If there are non-perceptual nirvikalpaka cognitions, they would be immediate. Vācaspati Miśra does seem to admit there are nirvikalpaka cognitions which are not sense-object connection produced, though he does not say that they go on to help in producing savikalpaka cognitions, which would then be mediate. He gives the example of the cognition of a lover fantasizing about his beloved which though nirvikalpaka is not sense-object connection produced. Yet he also goes on to say that cognitions of fantasy are differ from sense-born perceptual cognitions in that they are not sense-born and are savikalpaka.

na cendriyārtha-sannikarṣābhave 'pi pūrvāparāvasthā-parāmarṣātmano vikalpasya bhāvād anindriya-jatvam iti sāmpratam / tathā saty **avikalpakam** api kāmātur asya kāminīṁ bhāvayataḥ tadviṣayam **indriyārtha-sannikarṣaṁ vinā** 'pi dṛṣṭam iti, nīlādy-anubhavātmāno 'py avikalpakā anindriya-jāḥ prasajyeran / yadi tu nīlādy-anubhavānāṁ kāminy-anubhavāt kathaṁ cid viśeṣaṁ brūyāt, tadā 'smākam apy **anindriya-jebhyo vikalpebhya** utprekṣā-vyāpārebhyo 'stīndriya-jānāṁ *NVTT(K)*, p. 141.14-15.

[25] Veridical non-perceptual savikalpaka cognitions are mediate, because they are all ultimately derived from prior perceptual cognitions. Some erroneous non-perceptual savikalpaka cognitions also derive from perceptual cognitions, but not in a sound manner. These too would be mediate cognitions. Other, erroneous and fantastical non-perceptual savikalpaka cognitions are spontaneous, they do not necessarily follow other cognitions. The would be immediate cognitions. But they would not be *direct* cognitions, since constituents of their contents do not exist in the real, external world (at least according to our understanding of them).

[26] Note that the definition as it stands is neutral with respect to sequence.

[27] See *NS* 2.1.31-32 and the commentaries thereon.

[28] The definition as it stands would be unacceptable to those phenomenalists who hold that while we can reduce wholes to a collection of their parts, we do see them immediately.

7
Two Arguments against the Causal Theory

Several arguments are considered to flow naturally from a causal theory of perception – both in India and the West. They purport to show that either there is no direct and veridical perception of physical objects or that perhaps causal theories of perception are themselves defective. In the next two sections we will take a look at two of the most important arguments which dog a causal theory of perception and also the Nyāya's particular response to them. In this chapter we will examine the argument most often known as the causal argument. It was presupposed by the earlier Naiyāyikas when they formulated the basic Nyāya positions. And it was addressed by Vācaspati Miśra when he modified the positions of the earlier Naiyāyikas.

The Causal Argument

The causal or physiological argument (against the direct perception of physical objects) actually consists of a cluster of arguments all supposedly steming from the presupposition that there is a causal chain from the stimulus-object or causal object to the resulting perception of the object. In its broadest outlines, the causal argument is supposed to show that the object of our perceptions cannot be the physical object itself, since there are intermediary links in the causal chain which extends from the physical

object to our perception of it. These intermediary links intervene between the physical object, the purported object, and the perceptual cognition, the eventual effect, and thereby prevent direct access of the physical object by perceptual cognition.

This is reinforced when it is noted that all that is really necessary for any perception is the final causal link. It might be the terminus of several different causal chains, initiated perhaps by different physical objects, or it might not even be part of a perceptual causal chain, but part of a causal chain of hallucination.[1]

Here are two relatively recent quotations which summarize this argument:

> "Perception cannot be the direct contact or immediate confrontation with an external object it seems to be, since it requires this causal chain from object to the percipient's brain and is prevented if that is interrupted. Directness or immediacy, in this context, must mean no intermediary, no possibility of interruption, as well as no inference."[2]

> "Th[is argument] rests on a causal analysis of the processes involved in perception and draws a subjectivistic conclusion from the fact that in what is directly present to the mind is always and only the last item in this frequently lengthy chain."[3]

What it boils down to is that what really counts is the last cause before the effect, the cause which in some sense is the cause which actually brings about the perception and determines the nature of its content. If the last cause changes even though the object does not, the perception still changes. If this cause does not change, no amount of change in the object will have any affect on the perception, none of its changes will

be reflected in the perception; the presentation of the object in the perception will remain the same. Thus what one perceives appears to be the terminal or contiguous cause, and not the remote physical object. So something is wrong with the argument; or the physical object is not directly perceived, or the physical object itself is actually the last cause, the contiguous cause of perception. The Naiyāyika champions the last two.

There are two major assumptions for this causal argument. The content of a perceptual cognition refers to the cause or causal complex which *determines* the nature of the content in the first place. And the cause which determines the nature of the content must be the terminal cause in the perceptual chain, the *contiguous* cause of the perceptual cognition. The Naiyāyika accepts both of these.[4]

For the Naiyāyika the determing cause of the nature of an effect must be found within the causes which produced it. These causes must be contiguous causes, since causation cannot occur over a distance or through an intermediary. Thus if a physical object is to be the determining cause of a physical object, it must be contiguous cause. For the Naiyāyika, this means that they must come into direct contact with the relevant sense faculty.

The Early Nyāya Response to the Causal Argument

The causal argument in its pure form is not directly addressed in Nyāya writings. A more limited version of it is discussed in the form of an argument over whether or not the senses must reach the object (*prāpyakārin*) to function. Other elements of it are found in various related arguments and positions. The Nyāya assumptions concerning causation

and determination differ in crucial areas so it is natural that the Nyāya's version of the causal argument is slightly different from its counterpart in the West.

From debates with opponents there developed early on the strong presupposition that the object as cause ought to correlate with the object as perceived.[5] This means that the content of a perception should "cognitively refer" to the object which caused it. For example, if we perceive directly a whole substance (and no atoms), then it ought to be the whole substance which causes the perception rather than the atoms which make it up. Or if it is individual atoms which alone cause a perception, then it ought to be these atoms themselves which we see and not an aggregate made up of them. Essentially then, the object as perceived and the object as a cause should be congruent. For the Naiyāyika, they are one and the same.

Since the Naiyāyika does not accept causation - and thus determination - through intermediaries or at a distance, if a physical object is the cognitive referent of a perception and is thus the determining cause of the perception, it must cause the perception contiguously. Thus either it must come to the percipient or part of the percipient to it.

The Naiyāyika assumes that the senses are the conduit for the causation of perception. Thus the cause of any perception must affect the sense-faculty. The only thing which really affects the sense-faculty is that with which it is in contact.[6]

The Naiyāyika as well as most of his rivals assumes that in order for there to be a perception of a physical object the sense-faculty must somehow reach and interact with it. Just what the physical object, the sense-faculty, and here especially the relationship between them consists of is a bone of contention between most of the Indian

philosophical schools. The Naiyāyika holds that when an external physical object and any of its attributes is perceived, the sense-faculty, itself a physical entity, must come into physical contact with the external physical object, moving to meet the object if it must. This Nyāya analysis of the connection between sense-faculty and object suggests a physicalistic bias where the sense of touch is the paradigm sense.

The Naiyāyikas as well as most of their rivals operate under the assumption that in order for there to be direct perception of an external entity, whether a particular physical object, quality-instance, motion, or any of the other ontological entities, the sense faculty must reach and interact with the entity which is perceptually cognized. Accordingly, either each kind of sense faculty reaches and interacts with the physical object which appears in the perceptual cognition or if it does not, then that entity which it does reach and which appears in the perceptual cognition is not the physical object. That is, either the sense reaches the physical object and we cognize the physical object or it does not reach the physical object and we cognize something else.

The sense of touch, which is located throughout the skin, is the most straightforward; it is considered to truly reach out and touch the physical object. And similarly the sense of taste, which is located in the tongue, is simple; the object comes to it and comes into contact with the sense. In both of these cases, the sense reaches the physical object and it is the physical object which we cognize.[7]

The Naiyāyika notion of the senses of hearing and smell, on the other hand, are a bit more complicated. The senses of hearing and smell stay home and their object comes to them. In the case of hearing, the object is the last sound in a long chain of sounds (one producing the next) which initially originated at a physical object such as a

drum or rolling carriage. And in the case of the sense of smell, which is located in the nose, the object is an odor, a particle of the remote physical object which has been released by that object and made its way to our nose.

This all conveniently ties in quite well with the Nyāya ontology. Sound and odors are explained quite easily within the Nyāya ontology, but the case of the sense of sight and its object is problematic.

According to the Nyāya the faculty of sight is made up of particles of light (*tejas*). These are centered in the eyeball, but are not identical to it. During visual perception they swiftly travel (or stretch) to the object. They travel in an ever expanding cone and thus are able to connect with large objects as well as small. They connect with each individual object and then return and are thus able to distinguish between near and far objects. Thus, the sense of sight directly connects with physical objects.

In order to explain how the senses can directly connect with the qualities and movements of the physical object, as well as the other ontological entities, Uddyotakara posits, as we have seen, six varieties of connection. Since every ontological entity (*padārtha*) which is perceived must be connected to a sense, there must be a corresponding connection for each entity perceived. A substance-particulars is perceived, because a sense, itself a substance-particular, is in contact with the substance-particular. The quality-particular of sound is perceived, because it – the ultimate effect in a long series of causes and effects originating, for example, with the banging of a drum – actually inheres in that portion of aether located in the ear canal which makes up the aural sense. Other quality-particulars are perceived through the connection of inherence in the conjoined (*saṁyukta-samavāya*), since they inhere in the

object which is conjoined to the sense. Universals of sound are perceived through the connection of inherence in that which inheres (*saṁveta-samavāya*), because universals of sound inhere in the sound which inheres in the sense of hearing. And universals of nonaural objects are perceived through the inherence in that which inheres in that which is conjoined (*saṁyukta-saṁveta-samavāya*), because they inhere in quality-particular which inheres in the object which is conjoined with the sense. And absence (*abhāva*) is perceived through a pure qualifying relationship (*viśeṣaṇa-viśeṣya-bhāva*), since it qualifies the sense when it is perceived.[8]

Thus every component of the physical object which is cognitively referred to by the perception is connected to the sense. There is no room for any intermediary. The physical object itself can determine the content of the perceptual cognition.

Though the early Naiyāyika admitted the existence of causal chains, he did not accept causation through intermediaries. Each link is actually caused only by the immediately preceding link. This link or any other cause cannot operate over a distance, thus it must be contiguous. Since the Naiyāyika did not distinguish determination from causation, determination too is contiguous. Thus the early Naiyāyika did not explain it as functioning through the agency of causal chains. Thus the cognitive referent of a perceptual cognition is one of the contiguous causes of the complex which produces it. So either the sense goes out to meet the physical object, the physical object comes to it, or else the perceptual cognition does not actually cognize the physical object, but rather some intermediary. Thus in the case of visual perception where the content is the physical object, the sense goes out and meets the physical object; in the case of tactile perception where the content is the physical object, the

physical object comes to the sense; and in the case of aural perception where the sense does not go to the physical object, the content is a nearby sound and not the physical object.

Are there intermediaries in Savikalpaka Perception?

There is thus no room for intermediaries in a causal chain in the outer world or at the interface between the outer world and the human body or even between the sense-faculty and the mind. Might there be one between the two stages within the process of perception, between the mind and self, perhaps? There are beginning with Vācaspati Miśra two stages, the first of which temporally and causal precedes the second. It would seem that the first stage of perception, the nirvikalpaka stage, is an intermediary between the sense-object contact and the second stage, the savikalpaka stage. And it would seem that the activation of latent memory traces and the consequent arising of an instance of remembering are intermediaries between the nirvikalpaka stage and savikalpaka stage of perception. This would mean that the physical object and the sense-object contact are remote causes of savikalpaka perception.

As we saw earlier, the process which produces nirvikalpaka perception is virtually the same as that advocated by the earlier Naiyāyikas for the production of perception in general. The question of whether or not there are any intermediate causes then is essentially the same. The process which produces savikalpaka perception, however, is more complicated and involves several additional stages. Does the stage of recollection or the earlier nirvikalpaka stage intervene between the sense-object connection and the savikalpaka perception?

A Buddhist opponent objects that the sense and object do not directly cause (and so determine) savikalpaka perceptual cognitions, since the operation of the sense is interrupted or obstructed by an instance of recollection.[9] Vācaspati Miśra offers an earlier response to this objection that recollection would intervene between the sense-object connection and the savikalpaka perception. The response relies on a traditional Indian maxim, a part (of a whole object or process) does not obstruct or interrupt (the object or process as a whole).[10] We do not say that a man is not leaning directly against the wall because he is leaning against it with his arm. (Afterall, he has to lean by means of some body part; otherwise we would be saying that he, as a whole perhaps, is incapable of ever leaning directly against the wall.) Perhaps a billiard cue is an apt example of this in the realm of causation. The tip, shaft, and butt are all parts of the billiard cue as a whole, but we wouldn't ordinarily say that the tip of cue intervenes or is an intermediary in the causation by the cue.

The area or sequence which the Naiyāyika is referring to is not a whole-substance, like a billiard cue or person's body. It is rather a sequence of causal steps or stages.[11] It is possible that what the Naiyāyika had in mind was that this section or segment of the whole process ought to be treated as a black box. That is, the segment should be treated as a single unit and what happens within its boundaries is not relevant. It is as though its cause – the cause initiating the process – directly affects its effect – the effect generated by the process. It makes no difference to anything else what goes on between the cause of and the effect of this section. And if any part of this segment is taken away and the segment is altered, the whole process breaks down.

There is, however, a major problem with this analysis. For this segment is in fact an area where error is able to slip in, the sequence is here not invariable after all. Some variations of the segment lead to veridical perceptions and some, to erroneous perceptions. Consequently, the first step or any subsequent step may not lead to the completion of the whole process; the cause initiating the process may not end up generating the expected effect, its thrust may be diverted.[12]

The Naiyāyika may or may not admit that the first time-slice of the sense-object connection is a remote cause of savikalpaka perception. Yet he can still hold that a second time-slice of the sense-object connection and recollection of the object (or a activated memory trace) are contiguous causes of savikalpaka perception. The sense-object connection continues to exist and at a later time causes the savikalpaka stage.

Thus what we have is the following. The sense-object connection at time *1* produces the nirvikalpaka stage of perception. This stage at time *2* activates the latent memory trace which in turn at time *3* produces a instance of recollection at time *4*. This recollection and the sense-object connection, because it has either just arisen or has continued to exist, exist at time *4* and together - without an intermediary - cause the savikalpaka stage at time *5*. The contiguous causes of the savikalpaka stage are thus the entities which existed and functioned as causes at time *4*.

Indeed Vācaspati Miśra goes on to clarify what the Naiyāyika means when he claims that the stage of recollection does not intervene insofar as it is a part. He submits that the stage of recollection is simply one element of the causal complex which produces the savikalpaka perception.[13] And it acts at the same time as all of the other elements of

the causal complex to produce the savikalpaka perception. The complex consists of the same causes which produce the nirvikalpaka stage plus the stage of recollection.[14] It includes then the sense-object connection as well as the instance of recollection. But it does not include the preceding nirvikalpaka perception. Thus the stage of recollection does not intervene between the sense-object connection and the resulting savikalpaka perceptual cognition, because the recollection is part of the complex. And the nirvikalpaka stage does not intervene because the sense-object connection persists after the nirvikalpaka stage.

The sense-object connection is one of the contiguous causes of savikalpaka perception; there is no intermediary between it and its effect, the savikalpaka perception.[15] Thus it contributes to the existence and nature of savikalpaka perception. But it is not the only cause which contributes. The other contiguous causes of the causal complex also contribute to the existence and nature of savikalpaka perception. While Vācaspati Miśra's theory explains how a remote physical object can determine the nature of savikalpaka perception in general, it does not explain how a physical object as only one of the causes can determine the nature of a particular portion of the effect. This is a problem for Vācaspati Miśra's theory and was discussed in the previous chapter.

The Time-lag Argument

In this section we will examine the time-lag argument. Its name derives from the purported discrepancy between the time of the cause of a perceptual cognition and the time of its referent. The Naiyāyika makes use of this argument against opponents. By subjecting the Naiyāyika's own causal theory of perception to it, we find how the Naiyāyika understands his theory to be immune to it.

In the West the causal theory of perception has usually been considered incompatible with direct realism. A major reason for this has been the argument that a causal theory of perception entails the existence of a temporal lag between the time at which an object initiates a causal sequence leading up to its perception and the time at which the object is actually perceived. This temporal lag is supposed to follow from the nature of causation. Causation is a temporal process - certainly that which pertains to perception is - where an effect is distinct from and follows its cause. If an object is a cause of its perception, then it must exist before its perception.[16]

Although this argument is occasionally called an argument from science, there is little in its general form that cannot be found in common knowledge or discovered by ordinary observation.[17] The major premise is simply that we don't always perceive something at the same time as it is occurring. We are all familiar with the discrepancy between the flash of lightning and the following roll of thunder. And most of us have experienced at one time or another the fact that when we view a drummer at a great distance, it appears that he hits the drum much before it makes a sound or that the drum makes a sound long after it has been hit by a stick. But we assume from our prior

close up experience that in fact the drum emits a sound as soon as it is hit. Consequently, we now either see the drum being hit before the fact or we hear it being hit after the fact.

The same phenomena occurs when we see a star. By the time we see a star it is apt to have been out of existence for a long time. Suppose one clear and dark night we go outside and look upwards at a particular star. That is, we see what we think is this star. But we have been assured by astronomers that this star no longer exists. So we really don't see this star afterall. Consequently, our perception must be *erroneous*, since we see what doesn't exist. And yet we do see something *directly*[18], though it is not the star. So it must be something *other than* this star. What then is it which we see? It would seem then, that we never directly see actual stars.

What is common to these sorts of examples is 1) the admission that it follows from the nature of causation that the time at which a physical object exists and initiates the causal chain leading to its perception is different, at least occasionally, from the time at which the perception of this object occurs. That is, we perceive something after the fact. And 2) the supposition that we cannot veridically and directly perceive something which does not exist at the same time as its perception. Less extreme instances of this argument occur when an object has simply changed by the time it is perceived and has not gone out of existence. The gist is the same.

This kind of argument was enough to lead one group of realists (with some assumptions which differ from those of most Western realists), the Sautrāntikas, to come to the conclusion that the most plausible form of realism was a form of indirect realism. They and several other Buddhist schools at the time held that time and

existence were granular. Thus cognitions, including perceptions, and the world are divisible into discrete moments of time (*kṣaṇa*). They also held that there are only two sorts of instances of existence: the coming into existence (*utpāda*) and the passing out of existence (*vyaya*). They denied any abiding or static existence (*sthiti*).[19]

A cause would be coming into existence at one moment and then at the next moment when its effect would be coming into existence it would be going out of existence. Since both the object and its cognition would lack any duration, the Sautrāntikas, accepting the premise that an object must continue on after it causes a perception if it is to be directly accessible by that perception, concluded that perception would have to be indirect. An example of their argument is as follows:

> The organs and the objects of the five sense-consciousnesses, being causes of the latter, belong to a past moment. When the object (*rūpa*) and the eye exist, the visual consciousness is nonexistent. When visual consciousness exists, the eye and the object are not existing. In the absence of their duration (*sthiti*) there is no possibility of the cognition of the object.[20]

They therefore concluded that perceptions must be indirect (*apratyakṣa*) cognitions.[21] That is, perceptions are an awareness of a form which is caused by and corresponds to the external object, but which is part of the perception itself. The external object, which has gone out of existence by the time of the perception, can only be cognized indirectly.[22]

Vācaspati Miśra used this same basic argument against the position in the *Vādavidhi* of Vasubandhu[23], another Buddhist.[24] Using the author's own assumptions Vācaspati

Miśra argues against him as follows: If cognitions are without their own form (*nirākāra*), they are distinct from their object, their cause. And since according to Vasubandhu a cause cannot continue to exist once its effect has come into existence, the object which causes a perceptual cognition to come into existence can no longer exist when the perceptual cognition of it is in existence. Consequently, veridical perceptual cognitions would be impossible, since what are considered perceptual cognitions would be of objects which do not any longer exist.[25]

Both of the above arguments rely on a causal theory of perception, a theory of causation where the cause invariably precedes the effect and a theory of existence where no object exists for any duration of time. Consequently, there can be no overlap – not even partial, much less complete – in the time of existence between the object and its perception; when the perception exists, its causal object does not. But as we shall see, while admission of duration of the object and perception itself might provide partial simultaneous existence of the object as an entity through time and perception it does not guarantee complete simultaneity or correspondence between the two.

The Naiyāyika Solution to the Time-gap Argument

Vācaspati Miśra wields a form of the time-gap argument and presumably accepts it as a substantial argument, (although as we shall see he disagrees with part of it). He also, however, accepts a theory of direct realism as well as a causal theory of perception. We will now take a look at how he reconciles these positions.

The direct realist has at least two basic ways to overcome this problem. 1) He may acknowledge that a perception and its causal object must exist simultaneously in order

for there to be veridical and direct perception. And he may then go on to claim that according to his theory they do. He may deny that his theory of causation and existence forces him to choose between the causation of a perception by its object and the simultaneous existence of them both. And he may claim that an object can both cause its own perception and continue to exist (and remain causally effective) when its perception rises.

2) Or he may admit that a perception and its cause are not simultaneous, but that it doesn't matter, for this is not really a requirement of direct realism. He might then add that what is necessary is that we *perceive* an object *as* existing at the time at which it caused the perception, and that it is not necessary that we perceive the object at the time at which it existed. In other words, the time of a perceptual cognition and the time expressed in the cognitive object (*viṣaya*) of that cognition need not be the same. What is perceived need not exist at the time of its perception; and should it not, it would not be perceived as existing at the time of its perception. Consequently, there is no problem concerning the identification of the cognitive object with the causal object.

We saw in the previous chapter that the Naiyāyika holds that the sense of sight goes out and meets, forms a conjunction with, the object and that accordingly there is no medium functioning as a causal chain between the sense and the object. And we saw that the sense, the mind, the self, and their various connections form parts of a single causal complex and thus there is nothing like a extended nervous system which takes time to function. Thus according to the Nyāya account, there is no causal chain between the object and the sense – there is no transmission of light from the object to the sense – and so there is no room for a temporal lag here; and there is no causal chain between

the sense, the mind, and the self – there is no conception of a nervous system – and so there is no room for a temporal lag here either. There is just a single causal complex which leads without delay to the production of perception.

Still there remains the possibility that the object – when it is the cause of its own perception – and the resulting perception do not exist simultaneously, because the object as a cause and its perception as an effect are still temporally coincident and not contiguous. So unless the Naiyāyika is willing to claim that the resultant perception arises while its causes still exist, the fact will remain that at no moment does a perceptual cognition and its object exist simultaneously so that perception could be veridical and direct. The Naiyāyika does that.

The Naiyāyika holds that the object and the sense-object conjunction continue to exist after having brought the perception into existence and continue to act as supporting, or sustaining, causes of the perception which has arisen.[26] Uddyotakara claims that the Naiyāyika's theory of perception is immune to this sort of objection, since a cause often does exist simultaneously with the effect. Some causes serve as containers for their effects.[27] They thus must exist simultaneously.

Since the object and conjunction continue to exist (and continue to exist as they are, without change) at the time of the perception, the perception can be veridical and can be direct. Such a view of causation explains the following very well. If we drop an apple onto a table, the table will cause the apple to come to rest and will cause it to remain so for as long as it is situated under the apple.

An example of another kind or subcategory of causation, one central to Nyāya ontology and perhaps the one on which this analysis of causation is modeled, is the

case of whole substances.[28] The component parts of a whole substance which together bring about the existence of the whole over and above its parts must exist before the creation of the whole and must continue to exist as long as the whole exists. According to the Naiyāyika, the individual component parts produce the whole; and it lasts only as long as they continue to produce, or support, it. For example, the threads which when placed together produce a piece of cloth existed before the weaving of the cloth and will continue to exist and produce the cloth for the lifetime of the cloth. Of course, not all of the contributing causes must continue to exist for the lifetime of the whole – in this case, the weaver or his loom may cease to exist long before the cloth does.

The point is that after a perception has been brought into existence it can exist simultaneous to some of its causes. There can be veridical and direct perception of one of these causes. Thus the object of perception is an existent, a continuously existing entity, which comes into contact with, forms a persisting conjunction with, a sense faculty. This conjunction serves as the originating and sustaining cause of the perception. The conjunction does not just cause the perception and then merely continue to exist, but causes the origination of the perception and then continues to cause its persistence.

Nyāya metaphysics is a substance-, or better, an object-based metaphysics. That is, causation for the Nyāya is primarily between substances, qualities, etc. rather than between events. (For the Naiyāyika, events are analyzed in terms of and reduced to existent entities and movements.) The actual cause of perception, the sense-object conjunction (*saṁyoga*), is a quality-particular (*guṇa*). As such, it is an existent, its duration of existence indefinite. It is not an event like the corresponding Western notion

of impact or the making of contact, which is instantaneous. Thus it is not the action of making contact or conjoining, but rather the result of the conjoining or movement into contact of two substances. As a consequence, this conjunction lasts as long as the two conjuncts are conjoined. They remain conjoined as long as they are undisturbed or until they themselves undergo a change in composition. Thus the sense-object conjunction can persist and continue to act as a cause of perception.

The cognition too is a quality-particular, though it is of definite but short duration – long enough to exist when the conjunction (and object) exist, when they are not instantaneous.[29] What is usually considered a continuous perception consists of a series of discrete perceptions.[30] Thus the sense-object conjunction, after initially producing a perception, continues to exist and support the perception (for a very short time), (and this entails that) the object also continues to exist and indirectly participate in the support of the perception.

The object and the conjunction do not change within this interval, since a change in the object (a whole substance) would involve the replacement of the original object with a new object and thereby a replacement of the original conjunctive relation with a new one; and this, in turn, would produce a new and different perception. Since the object continues to exist (and continues to exist as it is, without change) during the time of the perception, the perception can be veridical and can be direct.

There is one *prima facie* objection to this solution: if the sense-object connection persists and continues to support the perception, should it not also continue to affect the perception? That is, whenever the object and thus the sense-object connection changes, the perception should likewise change.[31] Perception will thus reflect changes in the

sense-object connection, since this connection continues to affect the nature of the perception. But it will do so an instant afterwards, since an effect should follow its cause. It will thus be one step behind and hence erroneous. In cases where the object undergoes continuous change, perception will be constantly behind.

This is ruled out, however, by the Nyāya account of change and causation. The object and the connection are not considered to change during the duration of the connection and resulting perception. For a change in the object, a whole substance-particular, would involve the replacement of the original object with a new object[32] and thereby a replacement of the original conjunctive relationship with a new one; and this, in turn, would produce an entirely new and different perception – a change in the object (and consequent replacement of the cause of perception) leads to the corresponding replacement of the old perception by a new one.[33]

One problem remains: when the object does change or go out of existence, should it not still be reflected in the perception at the next and last instant of perception? On the one hand, when there has been no change in the object and there is no change in its perception or when there has been change in the object and a new perception has already replaced the old perception, there is no discrepancy between the object as cause and the object as perceived. But on the other hand, when there has been a change in (and therefore replacement of) the object and connection, but *before* there has been a replacement of the perception, is there not a discrepancy between the perception and its object? Are there not then instances of a time-gap whenever we have continuous perception – a series of mini-perceptions – of an object?[34]

While the Naiyāyika does hold that causation can be continuous, he does not explicitly break down the duration of causation into smaller units of causation, nor does he designate the object according to each stage of causation. I shall, however, in order to clarify the process make such distinctions and call the initial temporal portion or time-slice of the sense-object connection cause the 'initial cause' and the remaining ones the 'sustaining causes' or 'supporting causes'.

Now, what sort of characterization of the causal process involved in the causation of perception can the Naiyāyika give which will account for perceptions when the object has changed as well as those when the object has been static? There are three obvious possible positions available to the Naiyāyika.

The first position is that in which the initial cause and the sustaining cause always precede their portion of the effect. (The perception is the same in both cases, and seems to be generally treated as a single entity persisting through time, a non-substance whole, or individual, if you will, rather than a series of time-slices or stages.) The drawback here is that the last time-slice of the perception will exist a short time after its cause, the last time-slice of the sense-object conjunction, will have gone out of existence and will therefore be erroneous. This, again, is essentially the original problem. The second is that in which the initial cause is prior to the effect but where the sustaining cause is simultaneous with the effect. It would have the drawback, which might be considered minor, that the second moment or time-slice of perception would be caused both by the initial cause and the sustaining cause. The third is that in which the initial cause and the sustaining cause are both simultaneous with their effects. This is inconsistent with the Nyāya theory of causation where a cause invariably precedes its

effect. Although it would appear to relieve the Naiyāyika of some of his problems in this case, it would do so at the expense of disastrous repercussions elsewhere.

The third position is not really feasible, or else the Naiyāyika would not have thought that there might be a problem in the first place. The second position seems the most successful. It would at the least avoid a lingering erroneous perception of the last time-slice of the cause, when it has in reality already gone out of existence. At this stage, however, I have little evidence that this is the preferred Naiyāyika solution. Consequently, we are left with the first position with all of its associated problems.

To summarize: when continuous causation is admitted, there is no problem as long as there is no change in the object. There is thus no discrepancy between a perception and its object and so the perception can be direct and veridical. When there is change, however, the need for the causation involved to be simultaneous as well as continuous is clear. But this itself raises questions about the very definition of causation which requires a cause to precede its effect. (And the Naiyāyika does hold that the initial cause of perception precedes the beginning of the perception.) Thus the final time-slice of the cause of a perception and the final time-slice of that perception remain problematic.

The Nyāya Explanation of Purported Examples of Time-Lag in Perception

Now that we have seen what the Naiyāyika response to the time-lag argument consists in, we shall take a look at how he would be able to account for two of the paradigm examples of time-lag which are frequently used as premises in the argument: the sound of a coach or drum and light of a distant star.

Let us look at sound first. Do we directly perceive an object by means of our sense of hearing? Does the object continue to exist at the time of our perception of it? The Naiyāyika admits that we do in fact cognize the striking of a drum some time after it takes place. Thus it should follow that we do not directly hear the striking of a drum. In fact, the Naiyāyika would agree with this. He would add, though, that this does not mean that our aural perception is not direct. (And this does not mean that what we do perceive is some intermediary along the lines of a sense-datum.) Rather, this means that the object of our aural perception, the object which our sense of hearing comes into contact with, is not the drum or the striking of the drum. Nor is it the sound initially produced by the striking of the drum. It is rather the sound in our ear canal, which is the last of a series of sounds which are each produced by a preceding sound leading all the way back to the original sound produced by the actual striking of the drum. The sound in our ear, and this sound alone is directly perceived by us.

So, we do not hear a drum or the striking of the drum directly. We do not hear it at all. Rather we infer it, we cognize it indirectly; if we do not see it.[35] But what we do hear, we hear directly. The Naiyāyika might claim that instead of saying that "we hear a drum" we should more accurately say that "we hear a sound that is the culmination of a series of sounds originally produced by the striking of a drum."

The Naiyāyika, when confronted with the fact that we do observe temporal delays between the initial causation by a physical object and the eventual cognition of that object, is not going to give up what he takes to be a fundamental tenet of his realism – that our senses come into contact with and our perceptions are directly aware of the external world. However, in these cases he must give up the direct apprehension of the

physical objects themselves and settle for direct apprehension of "intermediary" external entities – sounds. The Naiyāyika is willing to settle for the position that our direct perception of physical objects (of moderate size and often remote) is restricted to two sense modalities: sight and touch.[36]

This leaves us with the various examples of celestial bodies – the star which no longer exists by the time its light reaches us and the sun which has changed in some of its properties by the time its light has reached us. It seems that our perception of them are at least partially erroneous. In those cases where we do have veridical cognitions of them, it most likely is the result of being overridden or augmented by higher cognitive processes. It seems that such cognitions cannot be direct. The most straightforward response would be to treat the examples of celestial bodies in the same way as those of sounds. This the Naiyāyika might do, but the Naiyāyika is not about to abandon visual perception as direct apprehension of physical objects if they are not remote.

Although the Naiyāyika claims that the sense of sight takes over some of the functions which we would attribute to ordinary rays of light, he admits that light is essential for vision and is many times itself apprehended – sometimes as a constituent of an object, light being a substance, and sometimes as an emission from an object.[37] It is after all the particles of light which we see when we look at a burning torch and it is the particles of light which we actually see when we see a mirage. And it is light which we see when we look at the sun and at the various stars.[38] The Naiyāyika could admit that the origin of the light may have changed since the time the light left it.

Thus not only has the star gone out of existence before the light which it emitted reached us, but the light which we do see is not a constituent of the object but is an

emission of the object and has travelled to where the sense of sight meets it. This light, being distinct from its source as sound and odor are from their sources, would be the direct object, not the celestial body which emitted it. Thus, it could reasonably be held that we do not directly see the sun or the stars. This would not mean, however, that we cannot cognize them veridically, though indirectly, by inference for example.

Under ordinary circumstances, however, the Naiyāyika would claim that there is no time-lag and that it is indeed the sense of sight which does all of the travelling. Hence, under such circumstances we directly see physical objects. Consequently, in the cases where there is an empirically substantiated temporal lag, the Naiyāyika could admit that we do not see the physical object immediately, yet in those cases where he considers there to be no time-lag, which are by and large the overwhelming majority, we do see the physical object directly.

An Alternative Position for Special Perception

Thus, the basic Nyāya position is that the time-lag argument is ineffective against the Nyāya theory because the first premise is false, for the time of existence of a perception does overlap the time of existence of its causal object. In addition, Vācaspati Miśra seems to indicate that the other major premise may also not be totally acceptable to the Naiyāyika, at least not with regard to some kinds of perception. This is the assumption that in order to have a veridical and direct perception, the perception must exist at the same time as its cause, (the object and) the sense-object conjunction. This is based on the belief that the content of a perception must be identical to the object which

participates in the causation, or production, of the perception.[39] They are one and the same entity.

A straightforward response, one considered for example by D. M. Armstrong[40], is that there are not two apparent entities which are to be identified. There is no mismatch or lack of correspondence between what one sees and what exists out there to cause the perception. We may have a veridical and direct perception of an object shortly after the object caused the perception, but it in some sense refers to the object as in the past. We perceive the object *as existing* in the past, at the time at which it caused the perception, not necessarily the time at which the perception occurs.[41] Thus we perceive the object as existing at the time at which it previously existed and caused our perception of it. In this way the perception would not be erroneous right off the bat, and could be direct.

When Vācaspati Miśra is discussing the topic of time, in particular, present time, he admits that the content of a perception is not always of a object which is currently existing. His grounds for this is the fact that there are clairvoyants who are able to see into the future and into the past.[42] While today most of us might question the fact of this matter, this does not necessarily mean that it is conceptual inadmissible. It is on occasion written that someone sees into the future or into the past. Most readers are not taken aback at this, thinking that this could not ever happen, since it is inconceivable. The reader might, on the other hand, hold that it is empirically impossible, that is, impossible in our world as we know it.

Vācaspati Miśra then does not disqualify perceptions of past and future objects; he does, however, go on to state that all perceptions must have simultaneously existing substrates. He does not go on to specify just what these substrates are. It seems as

though he has in mind that the object and conjunction do exist in the present time along with the perception. This would of course be consistent with what we earlier saw Vācaspati Miśra say. Vācaspati Miśra elsewhere claims that at least part of the object must be in contact with the sense, even if not all must be.[43] But this would seem to be vulnerable to the time-lag argument in reverse.

Vācaspati Miśra's view then seems a bit unclear. He admits the existence of perceptions of past objects, but seems to require that the sense-object conjunction and the object exist in the present time along with the perception. Lack of restriction to contemporaneous objects is confined to yogic perception. Ordinary perception, on the other hand, seems to be restricted by Vācaspati Miśra to present objects alone. That is, the object which is seen is before us, even though some of the attributes which it had and which it is perceived to have had may not now be in contact with the sense faculties, is the current itself with which the sense is connected. The perceived object is the external object, and it appears as it is, along with classifying past instances and instantiations.

The Naiyāyika thus feels that the time-lag argument, like the physiological argument, is not a sound argument against his position. The existence of the causal complex is not itself problematic. Now we shall turn to the nature of this causal complex and its role in the generation of veridical perceptual cognitions.

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[1] In fact, nothing prohibits there being several, different terminal links all leading to the same effect, assuming that there is a plurality of causes. This significantly changes the thrust of the challenge.

[2] R. J. Hirst, *Perception and the External World*, p. 11.

[3] Maurice Mandelbaum, *Philosophy, Science, and Sense Perception*, p. 123.

[4] This is discussed in chapter three.

[5] This is discussed in chapter three.

[6] The Naiyāyika, however, does not specify the physical object as the primary cause of perception. The Naiyāyika prefers to tap the sense-object connection as the primary cause, in most cases the determining cause. This functions, for our purposes, essentially the same as the object as connected to the sense. For it only that portion of the object at the time it is connected to the sense which determines the content of perception. Thus we will frequently use sense-object connection and object as connected interchangeably.

[7] Concerning this and the next few paragraphs see chapter three for a more extensive discussion and for sources.

[8] See chapter three for a fuller discussion of the six connections.

[9] api cālocite vastunīndriyeṇa tadanantarotpanna-śabda-smaraṇa-vyavahita-vyāpāram indriyam arthaś ca na savikalpikām api dhiyam upajanayitum arhataḥ *NVTT(K)*, p. 136.17-19.

The Buddhist characterizes the recollection as one of a word for the object rather than the state of the object when the word was learned. Vācaspati Miśra elsewhere

claims that the recollection which helps in producing savikalpaka perception is a recollection of the state of the object when the word was learned and also claims that this recollection augment or obscure the object in the savikalpaka perception. See chapters four and five.

[10] na ca yad evālocanam ajījanad indriyaṁ tad eva smaraṇasahakāri vikalpa-pratyayam ādhatte / na ca smṛtir vyavadhāyikā svāṅgam avyavadhāyakam iti nyāyāt *NVTT(K)*, p. 136.23-25.

See also Bhaduri, *Nyāya-Vaiśeṣika Metaphysics*, p. 298.

[11] It is doubtful if Vācaspati Miśra really means merely that a step b within the sequence Z (where $Z = \{a \text{ -> } b \text{ -> } c \text{ -> } d\}$) does not intervene the sequence Z as a whole. He seems rather to mean that recollection is somehow an extension or "outer" part of the sense-object contact. Thus recollection does not slip in between the sense-object contact (in an extended sense). It is not a case of one cause being qualified or altered or added to by another cause, but rather a case of the two, the sense-object connection and the recollection, functioning as a single cause. But a problem with this stems from the fact that the sense-object contact initially produces the recollection which in turn partially produces the savikalpaka stage. One cause is the effect of the other.

[12] This is not the case if we consider only *veridical* savikalpaka perceptual cognitions, because alternate possible chains are ruled insofar as veridical perceptions are defined as those which derive from only certain causes.

[13] na ca prāg avasthā-smaraṇa-sāpekṣatayā na_indriyārtha-sannikarṣaḥ kāraṇaṁ vikalpasyeti sāṁpratam / yathā – na kiṁ cid ekam ekasmāt sāmagryāḥ sarva-sambhavaḥ / iti bhavanto 'py āhuḥ *NVTT(K)*, p. 138.20-23.

[14] Vācaspati Miśra goes on to explain that the reason the earlier causal complex which produced the nirvikalpaka perceptual cognition did not instead produced the savikalpaka perceptual cognition is that there was lacking the necessary instance of recollection. See *NVTT(K)*, p. 138.23-4. "anyathā''loka-manaskārasāpekṣam arthendriyaṁ nirvikalpakam api na janayet / yat tu prathamaṁ nājījanat tat *smaraṇa-sahakāri-virahāt*" Vācaspati Miśra does not, however, mention the lack of a nirvikalpaka perceptual cognition. Thus it would appear that the lack of recollection is the sole reason. Elsewhere, however, he does seem to indicate that both are the additional causes. See *NVTT(K)*, p. 143.14-17. "tena_eka-vijñāna-vedyatve yady api jñāpya-jñāpaka-bhāva upakāryopakāraka-bhāvo nāsti, tathāpi *tadarthālocanānugata-smaraṇayor* viśeṣaṇa-viśeṣya-bhāvāvagāhi vijñānaṁ praty utpādakatvam eva_ upakārakatvam asti"

[15] Though there is no lack of temporal contiguity between the sense-object connection and the savikalpaka perceptual cognition, there does appear to be a lack of spatial contiguity in the causal chain running from the sense-object connection to the mind-self connection and the ultimate savikalpaka perceptual cognition. A savikalpaka perceptual cognition arises in in the self (*ātman*). The Naiyāyika claims the self is all-pervading. But the causal chain runs through the mind (*manas*) which is atomic and far removed from the physical object. We have then: the physical object connected to a sense connected to the mind connected to the self. While the physical object and the

all-pervading self may in places be contiguous, the sense and the mind intervene between the physical object and the self.

16 See R. J. Hirst, *The Problems of Perception*, pp. 22-23 and D. M. Armstrong, *Perception and Physical World*, pp. 144-152.

17 See, for example, R. J. Hirst, *Perception and the External World*, p. 10-11.

18 I am using 'direct', 'directly', etc. to mean that the content of a perceptual cognition is the object to which it refers. This varies from the usage in chapter six, where 'direct' was used to mean that the cognition is immediate, its content is the external object, etc.

19 David Kalupahana, *Buddhist Philosophy*, p. 101-103.

20 A Sautrāntika *pūrvapakṣa* in the *Vibhāṣāprabhāvṛtti* to the *Abhidharmadīpa*, p. 47f. Quoted in David J. Kalupahana, *Buddhist Philosophy*, p. 103.

21 This position is often characterized - even by Kalupahana - as a kind of representational realism where the physical object is inferred rather than immediately cognized. This characterization usually comes from later Hindu treatises such as the *Sarva-darśana-saṁgraha*. Mādhava, the author of the *SDS*, likely gets this characterization from an interpretation of the cognition of physical objects according to the school of Diṅnāga. Here, as we saw earlier, the physical object (*artha*) and all of its attributes are inferred from an earlier sensory perception of an individual characteristic (*svalakṣaṇa*).

22 David J. Kalupahana, *Buddhist Philosophy*, p. 103.

23 As we saw earlier, this Vasubandhu is likely different from the Vasubandhu who wrote the idealist treatises *Triṁśikākārikāprakaraṇa* and *Viṁśikākārikāprakaraṇa*.

[24] Interestingly before the composition of the previously mentioned treatise, the *Vibhāṣāprabhāvṛtti*, the Vasubandhu who authored the *Viṁśatikā* used a version of the time-lag argument against the older Sautrāntikas. Amar Singh, *The Heart of Buddhist Philosophy*, p. 124. na so'rtho dṛśyate tasya pratyakṣatvaṁ kathaṁ matam (*Viṁśatikā* 16); yadā ca sā pratyakṣa-buddhir bhavatīdaṁ me pratyakṣam iti tadā na so 'rtha dṛśyate (*Svavṛtti*) *Vijñaptimātratāsiddhi*, p. 8.28-30.

[25] *NVTT(K)*, p.152.19-153.19.

[26] The standard Nyāya definition of cause specifies that the cause is antecedent to the effect. It does not require that the effect follow the cause. That is, it does not rule out the overlapping of the existence of the cause and effect as long as the cause precedes the effect. See Keśavamiśra's definition "ananyathāsiddha-niyata-pūrvabhāvitaṁ kāraṇatvam" *Tarkabhāṣā*, p. 9 and cf. Udayana's definition "pūrvakāla-niyata-jātīyatvam."

[27] *NV* I.1.4 and *NV* III.2.12 and *NVTT(K)* thereon, p. 583.

[28] This is discussed in chapter two. See also D. N. Shastri, *Critique of Indian Realism*, pp. 161-65.

[29] Uddyotakara claims that cognitions (*buddhi* = *jñāna*) last for a shorter time than most transient things, but that they do not go out of existence as soon as they come into existence. *NV* III.2.42. He does so in commentating on the compound 'ending upon arising' (*utpannāpavargin*) which is Vātsyāyana's gloss of the term 'indefinite (duration)' (*anavasthāyin*) found in the *Sūtras*.

[30] *NS*, *NBh*, & *NV* III.2.45

[31] See NBh III.2.44. "grahaṇe hetu-vikalpād grahaṇa-vikalpo na buddhi-vikalpāt"

[32] A physical object may change in two ways: the substance-particular substrate may be replaced by another substance-particular or a quality-particular attribute may be added, lost, or replaced by another quality-particular. See chapter two.

[33] The other attributes of the external object which are connected by means of the other six kinds of connections may also undergo changes. If they do, the connection will also change.

[34] See chapters two and three for discussions of continuous perception.

[35] etad uktam bhavati viśiṣṭa-dig-deśāvasthita-śakhādi-prabhava-śabda-saṁtāna-janyasya tasya śabdasya ko 'pi dharma-bhedaḥ śrotra-gocaro yasmāt tasya viśiṣṭa-dig-deśāvasthita-śaṅkhādi-prabhavatvam anumīyate *NVTT(K)* II.2.13, p. 452.6-8.

[36] See also the previous section.

[37] The sense of sight is itself a form of light (*tejas*). Unlike ordinary rays of light, however, it is not visible.

[38] *NBh* and *NV* III.1.36.

[39] See chapter six for a discussion of thesis that the cognitive object, or the content, of a perceptual cognition is identical to the causal object, the object which causes the perceptual cognition.

This interpretation of the identity of the cognitive object and the causal object, however, also assumes that the content of perception is a part of the perceptual cognition itself, or else is closely tied to it. The direct realist may hold that the content, being the both the external referent and cause, is neither part of the perceptual cognition nor closely integrated with it. Rather it the object as seen or cognitively referred to.

[40] D. M. Armstrong, *Perception and the Physical World*, p. 147.

[41] We would perceive an event as it was occurring, not as it had occurred. Past progressive as opposed to past or present perfect.

[42] *NVTT(K)*, p. 404.

[43] nanv atītāvasthāviśiṣṭatvam asya nendriya-sannikṛṣṭam iti kathaṁ pratyakṣaṁ / tatkiṁ yad indriya-saṁbaddhaṁ tat pratyakṣaṁ tathā saty ākāśa-paramāṇv-ādayo'pi tatsaṁyuktā iti te'pi pratyakṣāḥ prasajyeran / tasmād yad evendriyajasya jñānasya gocaras tat pratyakṣaṁ na tv indriya-saṁbaddham *NVTT(K)*, p. 139.14-19.

8
The Production of Knowing

The Naiyāyika holds that all instances of knowing (*pramā*) are the result of proper processes and reasons and derive their truth from these. They are all generated by proper sources of knowing (*pramāṇa*), instruments or processes which reliably generate knowledge. Opponents of the Naiyāyika point out that not all veridical cognitions are sound cognitions, instances of knowing.[1] These veridical but unsound cognitions are not ruled out by Nyāya definitions of knowing – a veridical definite other than recollection. Unfortunately they aren't ruled out by the condition that knowing be generated by a proper source of knowing, since this condition happens to be coextensive with the definition of knowing. Thus the Naiyāyika doesn't utilize this condition judiciously.

The core concepts around which Nyāya epistemology centers are those of *pramāṇa* and *pramā*. They are roughly: the sources of, or means to, knowing (later developing into knowledge-producers) and the forms, or instances, of knowing. These two notions were distinguished early on and then developed in close unison with each other.

Indian philosophers make a clear and functional distinction between the production of knowing (*prāmāṇya-utpatti*), or sound cognition, and the ascertainment that a cognition is or is not sound (*prāmāṇya-jñapti*), is or is not an instance of knowing. The production of knowing is concerned with the proper conditions which are necessary and sufficient to produce instances of knowing. We shall shortly examine the role of a source of knowing, or knowledge-producer (*pramāṇa*), which is to produce knowing; the

knowledge-producer constitutes the reasons – causes or grounds – why one veridically believes something, when he so does. The ascertainment of knowing is concerned with the method of discovering or perhaps confirming that a particular cognition is an instance of knowing. It specifies which means are available for us to use in order for us to find out whether a cognition is veridical or not. In a sentence: knowledge-production specifies the reasons – causes and ground – *why* a cognition is true and knowledge-ascertainment specifies how we can *tell* that it is true. This distinction between the production and the ascertainment of knowing and the distribution of various roles between them have a major influence on the meaning and development of Nyāya epistemology as a whole and of the various concepts which it employs.

The Nyāya theory of knowledge is unabashedly causal. This is consistent with and derivative from the general cognitive scheme of the Naiyāyika. Nyāya epistemology is not distinct from its psychology; and its psychology is causal. Thus our processes of reasoning are to be explained in causal terms as well as logical and conceptual terms. Every cognition, or thought, is produced by something, since everything noneternal which exists is produced, or caused, by something. These causes and effects are not unique, but are in each case instances of regularities; causation is never haphazard. If the same conditions are met, then the same effect shall take place. Thus every kind of true cognition has at least one regular and distinct causal route to its origination. Though for the Naiyāyika causation is strict, for he does not recognize the plurality of causes.[2] Cognitions are thus never accidental nor haphazard.[3]

The Naiyāyika has identified four causal routes to, or sources, of, knowing. That is, the Naiyāyika accepts but four kinds of knowledge-producers. Here I shall only discuss the two major ones, omitting analogy and verbal authority. Any other apparent knowledge-producer can be reduced to one of these four, or else it is not actually a knowledge-producer. Thus every instance of knowing has as its cause one of these four knowledge-producers. If it does not, then it is not truly an instance of knowing.

Before we go on to examine knowledge-production itself and its role as a condition of knowing we shall take a brief look at the Nyāya conception of knowing (*pramā*). Since the Nyāya idea of giving a definition is not to lay out a detailed and exhaustive definition, but rather to define by citing the major differentiating characteristic (or characteristics, if necessary) of the item to be identified, the Naiyāyika does not put forth in one place a detailed definition or exhaustive characterization of an instance of knowing. The Naiyāyika does, however, have a definite idea of what an instance of knowing consists in and which is taken for granted, but only found scattered throughout his writings. Briefly, an instance of knowing is a definite presentative-experiential cognition which is veridical. (Respectively, *pramā* is a *jñāna* which is *avyabhicārin*, *niscaya*, and *anubhava*.[4] And as we saw, it is also always produced by a (proper) knowledge-producer.[5]

We can put this into a more familiar conditional definition form. A cognition is an instance of knowing for *S* =df

- **i)** it is a definite (or judgemental) cognition,
- **ii)** it is a presented experience (that is, it is not an instance of recollection),
- **iii)**it is veridical.

Since the condition of something being a cognitive experience (*anubhava*) entails its being a definite cognition (*niścaya-jñana*), the following definition is more common.

A cognition is an instance of knowing for *S* =df

- **i)** it is a presented experience (and not an instance of recollection), that is, it is a definite non-recollection cognition,
- **ii)** it is veridical.

In this form the Nyāya definition contains analogues to two of the three conditions of the traditional Western definition of knowledge. This definition does not, however, include the analogue to the third condition that the belief be justified. The Naiyāyika does of course recognize this condition, the condition that the veridical cognitive

experience be generated by a reliable knowledge-generator, but it does not include it in the definition of knowing. As we will see, it is not included because it is redundant - no veridical cognitive experience is not generated by a knowledge-generator and nothing generated by a knowledge-generator is not a veridical cognitive experience, a veridical definite non-recollection cognition.

While it is quite different from the traditional tripartite definition of knowledge, there are enough similarities to feel that the Nyāya analysis of knowing can profitably be compared with the traditional Western analysis of knowledge and its revisions, especially the condition of justification or knowledge-generation.

Before we go on to take a look at *pramāṇas* (translated as 'knowledge-producers' and as 'knowledge-confirmers') it should be re-emphasized that the notions of the production of knowing (from *pramāṇas*, knowledge-producers) and the ascertainment of the fact that a cognition is an instance of knowing (by means of *pramāṇas*, knowledge-confirmers) are interrelated; this division allows the Naiyāyika to distribute various epistemological burdens between them. Consequently, we must keep this in mind when we examine one of the pair and find missing something which we might ordinarily find or expect to be attributed to the Western analogue of it.[6]

The Nyāya theory of perceptual knowing is first of all an externalist theory.[7] It is external in that perceptual cognition is epistemically based on something besides an inner mental state, a internal quality-particular of the self. In the Nyāya theory, perceptual cognition is based on both inner and outer causal factors. These causal factors include such factors as the proper functioning of the arbiter of attention (*manas*) and of the sense faculties, freedom from the influences of wishful thinking, proper lighting conditions, lack of visual obstructions, as well as the object to be perceived. Thus knowing is a matter of some empirical relation holding between a occurrent belief or cognition and the object or state of affairs in the external world which causes the the

belief or cognition to be true. This relation is basically causal, although it has not, and probably cannot be completely spelled out.[8]

Cognitions are not in some way intrisically true just because they arise. If cognitions were true in and of themselves, then even thought they are caused, their causes would have no bearing on their truth. But for the Naiyāyika cognitions are not, as many of their opponents have it, innately true. Nor are they neutral with respect to truth (or the ability to serve in turn as knowledge-producers for succeeding cognitions!) They arise either true or false (assuming that they are definite cognitions other than recollection). Given that the same set of causal conditions cannot give rise to both true and false cognitions, the causal complexes which produce true cognitions must be different from those which produce false cognitions. Thus out of those complexes which bring about cognitions in general only a special set or kind produce true cognitions. Those special sets of causal complexes are knowledge-producers (or truth-generators).

The condition for knowing that a cognition must be produced by a knowledge-producer in order to be an instance of knowing is a causal-reliabilistic condition. Essentially this condition is: if all the proper causal conditions for knowing are met, an instance of knowing will invariably arise. That is, if all the necessary positive causal conditions are present and if no positive antagonistic, or inhibiting, causal conditions are present, an instance of knowing will be produced.

The Nyāya account of knowing is a causal-reliabilist account. According to it, under certain circumstances - when an occurrent belief (*jñāna*) in person *S* is produced by a knowledge-producer - that belief about an object *p* ensures that *p* as such exists. The relation between the occurrent belief and its object is both a causal and a reliable (channel) relation[9]. This relation, the knowledge-producing relation, is a causal relation. The object, the sense-object contact, sufficient light, etc. cause the cognition of the object to arise. Inference is similarly causal. The inferential process is also a

reliable channel, a reliable means. If certain inputs are made, certain outputs result reliably. Given certain perceptions as "premises" certain inferential cognitions result.

The conditions or circumstances actually obtaining under which *S* gets his (occurrent) belief, however, are very strict (though not spelled out in great detail) for the Naiyāyika. We shall return to this later.

The condition of being produced by a knowledge-producer is a major condition in the Nyāya theory of knowing (*pramā*). There is no additional condition which is purely a condition of justification. Rather, knowledge-production serves many of the roles that justification would. It addresses the intuitions that we have when we look for an answer to questions such as: how do you know that such and such is the case. It provides us with reasons. But it doesn't fulfill all that we expect in a theory of justification. In the first place, it is an externalist theory. It makes use of states of affairs outside a person and is unavailable to him. This is especially so in the case of perception, but it also applies to a lesser degree to inference. And true perceptions when they are unknown to be true do not serve as evidence by means of which to judge the truth of another cognition.[10] It also seems more explanatory (and perhaps guiding) than evaluative. While one can perhaps use the condition of knowledge-production for guidance or evaluation in "setting up" perceptions or drawing inferences, it seems to emphasize more what it is to be a sound perception or inference than how to tell whether one has made one. This brings us to the ascertainment of knowing, the topic of the next chapter. Many of the roles which justification is normally considered to serve are to be found fulfilled by the Nyāya account of the ascertainment of knowing. Thus justification is distributed over both the theories of production and ascertainment of knowing.

Knowing is defined by Vācaspati Miśra simply as a definite cognition other than recollection which is true (is faithful to its object, *arthānabhicāri*). Knowledge-producer (*pramāṇa*) is defined as the cause or grounds of knowledge (*pramā-hetu*).[11] Since a knowledge-producer is defined such that anything produced by it would be co-extensive

with knowing, it would add nothing to the definition of knowing of Vācaspati Miśra, it would not serve to exclude anything which is not already excluded by Vācaspati Miśra's definition.

One of the consequences of this is that veridical definite non-recollection cognitions, true occurrent beliefs other than memory-beliefs, which we would prefer not to and which usage encourages us not to consider instances of knowing, such as lucky guesses and Gettier counter-examples[12], are according to Vācaspati Miśra's (and other Naiyāyika's) definition of knowing in fact instances of knowing. That is, a true (definite and non-recollection) cognition which ought to be excluded from knowing cannot be excluded by reference to the fact that it is not produced by a (proper) knowledge-producer, for if it is a true (definite and non-recollection) cognition it is by definition produced by a true (definite and non-recollection)-cognition-producer.[13]

Ordinarily one of the conditions of knowledge or knowing is formulated in order to explicitly exclude such cases. And an externalist causal-reliabilistic condition of knowledge-production ought to perform this job. But here it doesn't.

Perhaps since it is the major concern of the Naiyāyika to produce or generate knowledge, the emphasis was on explicating knowledge-producers which do in fact generate knowledge rather than on crafting a definition of knowing which would exclude undeserving cognitions from its purview. In any case, the question of excluding lucky guesses, much less Gettier examples, is unexplicably not found in Nyāya writings, at least before Srī Harṣa. Let us now turn to the problem examples.

Srī Harṣa provides two counter-examples to the definition of knowing as simply veridical definite cognition which is not recollection. The first is a case where someone comes up with a veridical inferential cognition based on an erroneous perceptual cognition.

Suppose that there is a mountain in the distance and on it there is a fire.[14] But there is also a windstorm kicking up dust while simultaneously preventing any smoke

produced by the fire to rise. Now, a man comes by and looks at the mountain and sees a dust devil; but he mistakes it for a cloud of smoke. From this misperception of smoke he quite reasonably "infers" that there is fire on the mountain from which the smoke came. He may even then go to the mountain and confirm his inference and earlier perception. "Does this not count as an instance of true cognition which is not knowing?" the opponent asks. How would the Naiyāyika likely respond? He didn't, unfortunately, discuss such examples routinely, as one (trained in Western epistemology, perhaps) might expect. We shall have to look at his likely and possible responses given this theory of knowing. Would this instance be an instance of knowing according to the Nyāya theory? Would it be true?

Such an example is very similar to the standard Gettier-type counter-examples. It seems to meet all the conditions of a traditional definition of knowledge, but we would be reluctant to call it a case of knowledge. The Naiyāyika answer is simple. It is not a case of knowing, because it is not properly produced. The relevant condition for the Naiyāyika - being produced by a knowledge-producer - is here a causal-reliabilistic condition, not one of justification.

The Naiyāyika will of course point out that it is a fallacious derivation. He will claim that the inferential cognition is unsound. According to the Nyāya theory of inference, a cognition which is purportedly a sound inference cannot be produced by a false cognition as a "premise".[15] And the perception itself is not a veridical perception. After all, what the observer saw was not actually smoke. Thus, a cognition produced from such conditions cannot be expected or guaranteed to be true. But can it be true?

The problem results form the Naiyāyika's insistence that there is a strict one-to-one correlation between the truth of a definite and non-recollection cognition and being produced by a knowledge- or truth-producer. As we have seen, not only does proper production ensure a veridical cognition, but a veridical cognition presupposes that its production has been proper. You can't have one without the other. As a consequence

the Naiyāyika must claim that in reality the inferential cognition that there is a fire on the mountain is false.

But first, what about the fact that the man after going to the mountain and perceiving fire there ascertained that his earlier inferential cognition was veridical. Well, he would also find that his initial perception of smoke was false and from this he would have to admit he has no right to ascertain that the subsequent inference was sound.

How then can the Naiyāyika claim that the resulting inferential cognition is false when it appears by common sense to be true? How can he account for the discrepancy between the fact that the inferential cognition cannot be veridical due to its poor pedigree and the fact that it seems to veridical since it consistent with a later perception? The Naiyāyika has to claim that the cognition is false in its very nature (at least partially and relevantly) and that the cognition is different from that which would arise if the conditions were proper. The Naiyāyika might answer that the fire actually on the mountain and the fire erroneously cognized are in fact two different particular fires. This is consistent with his view that there is no plurality of causes. The problem becomes more difficult if the observer infers only that there is *a* fire on the mountain. Still, the Naiyāyika could push this to the extreme and claim that the substance-particular which instantiates the universal fireness is different in the two cases. The fact that the same universal fireness is instantiated causes no problems according to the Naiyāyika, for it is readily admitted that the same universal is found in cases of erroneous and veridical cognition alike; this is why there is a problem of error in the first place.[16]

In the other example of Srī Harṣa, a gambler correctly guesses the number of nuts in the house's hand.[17] The gambler is even convinced that he knows the number beforehand. But of course we would say that he doesn't really know. An adequate response for the Naiyāyika, however, is unexpectedly difficult.

One response might be that it isn't really a true occurrent belief, a definite cognition, but rather a hypothesis, a kind of indefinite cognition (*saṁśaya*). This, according to the Naiyāyika's opponent, is an unacceptable characterization of this state; it goes against our very conception of definite and indefinite cognitions.[18] If he claims that it is, in fact, an erroneous cognition, he again must explain how. The Naiyāyika account would have to be similar to the previous example.

If he were to admit that it is a true cognition, then it becomes an instance of knowing and being knowledge-producer produced. This would mean that the gambler must have actually used one of the knowledge-producers, perhaps unconsciously. He might, for example, have really perceived the number of nuts without anybody, including himself, having been aware of his doing so. (Yogic perception on the part of an ordinary individual doesn't seem appropriate.)

Thus if we admit that the gambler has a definite cognition, then either the gambler really did use one of the knowledge-producers; or else he really didn't guess correctly, he was wrong.

The Naiyāyika can of course stick to his guns and grind out responses such as those we have just seen. But why is he faced with this difficulty to begin with? The Naiyāyika is forced into this position because his causal-reliabilistic condition for knowing is too encompassing. In Armstrong's view, he has succombed to "credulism" (where all true beliefs reliably ensure that the content each of these beliefs is the case).[19] But what the Naiyāyika does is not so much enlarge the range of reliable channels to encompass all cognitions which we would at least normally consider true, but rather he shrinks the domain of true cognitions which the few reliable channels he is willing to admit must reliably ensure. The number (and kinds) of cognitions which the Naiyāyika will accept as being true is restricted by the limited number of knowedge-producers which the Naiyāyika accepts.[20]

The nature of the Nyāya definition of knowing might be clarified and some of the aforesaid difficulties which result from it might be highlighted by offering a simple and minimal alteration to the definition which would rule out both Gettier-type counter-examples and mere lucky guesses.

First off we shall acknowledge that the set of knowledge-producer-produced cognitions (*pramāṇa-phala-jñāna = pramā*) is but a *subset* of true cognitions (*arthāvyabhicāri-jñāna* or *yathārtha-jñāna* is a subset of *pramā*).[21] I shall use the term '*reliable*-truth-generator' for '*pramāṇā*' rather than 'knowledge-producer'. We thus admit that there are other truth-generators besides reliable-truth-generators, knowledge-producers (since all noneternal entities including cognitions have causes). But how does this square with Nyāya metaphysics? Does this mean that some instances of true cognition are, if uncaused, at least haphazardly caused? We needn't deny that regularities govern true cognitions which are not instances of knowing, only that if we don't or can't utilize these regularities properly or reliably to produce cognitions, we can't claim the resulting cognitions as instances of knowing. The point is to admit that not all truth-generators serve as reliable channels to knowledge; only reliable truth-generators do.

Something along the lines of following seems the obvious candidate for a minimal alteration of the Nyāya definition of knowing and reliable-truth-generator:

First we redefine reliable-truth-generator (*pramāṇa*):

Reliable-truth-generator =df

> that which produces truth or true cognitions in a non-accidental way.[22]
>
> (The qualification in a non-accidental way would have to be further specified.)

Using this definition, we can now set up something like the following definition for knowing (*pramā*):

Knowing =df

> a true definite cognition[23] other than recollection which is produced by a reliable-truth-generator.[24]

This definition would keep out Gettier examples as well as rule out lucky guesses. It revolves around the stipulation that a cognition can be true without necessarily also being the product of a truth-generator (*pramāṇas*). And also retains the restriction that a reliable-truth-generator generated (or "justified") cognition, must necessarily also be true. The Naiyāyika difficulty is that he is reluctant to admit true cognitions which are not instances of knowing, true cognitions which are not produced by knowledge-producers or reliable-truth-generators.

As we can see the Nyāya causal-reliabilistic account of knowledge-production is inadequate in a small but significant way. While it does ensure that cognitions produced by knowledge-producer are veridical, it does not allow for veridical cognitions which are not generated by knowledge-producers. It is prevented from admitting them, because he has essentially defined knowledge-producers in terms of veridical cognitions. The Nyāya definition of knowledge-producer as it now stands is conceptually parasitic on the definition of knowing. It would have to be reversed to allow in non-knowledge-producer produced veridical cognitions. The terms of the definitions could remain, but their arrangement would have to be modified.

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[1] In this chapter and the next, where the topic is primarily knowing (*pramā*), I shall also use the term 'sound cognition' as an alternative to the translation 'veridical cognition' for '*pramā*'. It better reflects the meaning of *pramā*, since *pramā* is according to the Naiyāyikas as well as to most other Indian philosophers both veridical and properly derived or generated.

[2] As we saw earlier, in order to justify inference from an effects to a cause, the Naiyāyika claims that the cause of any effect is unique. An effect cannot have been produced by any other cause than the one which in fact produced it.

[3] See chapters two and three.

[4] See chapter three.

[5] We might note two things here: 1) The definition of knowledge-producer is parasitic on that of knowing, for *pramāṇa* =df *pramā-hetu*. It is thus felt that it cannot be used for and is unnecessary for defining knowing. 2) The presence of a knowledge-producer is, however, assumed to be strictly correlated with an instance of knowing. The definition specifies that the extension of knowledge-producers is not less than that of instances of knowing - whatever it is which produces knowing is a knowledge-producer, not that that which is a knowledge-producer produces knowing.

[6] See chapter three for the relationship between the sources of knowing, knowledge-generators, and knowing.

[7] The Nyāya theory of knowing (*pramā*) is in fact externalist in *three* related but distinct ways. First, as we have seen, it does not require that one know or be aware of the fact that he believes, or cognizes, something in order for him to possess knowledge. Second, a sound cognition, in fact any cognition, is determined, or individuated, by its object, which is external to it. And third, an instance of knowing is derived from objects or states of affairs beyond our introspectively accessible inner mental states, cognitions; beyond perceptual beliefs and sensory states.

[8] Although the knowledge-producers of cognitions other than perception are not external, they are causal-reliablistic. They are not exclusively causal. The producers of inferential cognitions, for example, are logical as well as causal.

The difficulty and perhaps impossibility of a complete specification of all causes involved in the production of perception is shortcoming of most causal theories of perception. It has been argued, by Grice for example, that the validity of a causal theory of perception does not depend on such a specification.

[9] 'Reliable' has been confusingly used in the literature in two ways. The first is as an attribute of the evidential relationship between the belief in an object and the object's existence. The occurrence of a some beliefs is reliable *evidence* that the object of belief exists. The second is as an attribute of the relationship of generation, or perhaps justification, between the object and its cognition, or belief. Those channels which reliably *generate* truth are considered to be reliable. Since both uses are pertinent here, we need make no differentiation between the two uses of 'reliable' in characterizing the Nyāya theory.

[10] This is the topic of the next chapter.

[11] This is discussed in chapter three.

[12] See Edmund L. Gettier, "Is Justified True Belief Knowledge?" Simply, a Gettier example is a counter-example to the traditional triparte definition of knowledge: knowledge is justified true belief. It is an example of a belief which initially at least strikes us as both true and justified, but which we are reluctant to accept as an instance of knowledge.

[13] If a *pramā* is a definite true cognition other than recollection, and if a *pramāṇa* generates a *pramā*, then something else other than a *pramāṇa* generates recollection, which can be a true cognition. (Vācaspati Miśra does not, however, strongly support this exclusion; he defers to tradition here.) The Naiyāyika ignores this, for he equates knowledgehood with truth. In any case, he appears *not* to have allowed that there can

be cognitions (other than recollection) which are true and which are not instances of knowledge.

[14] The example derives from Srī Harṣa when he is criticising the Nyāya definition of knowing as the cognitive experience (explicitly given by Udayana but implicit in earlier Nyāya texts) of that-ness (*tattvānubhava*), *KKK*, p. 389.

For another discussion on this topic and a possible Nyāya response based partially on insights from Gaṅgeśa, see Matilal, *Perception*, p. 135-138.

[15] *NV* I.1.5.

[16] See again, *KKK*, pp. 390 and 391ff.

[17] *KKK*, pp. 383-384.

[18] *KKK*, p. 384.

[19] See D. M. Armstrong, "Replies," pp. 245-7.

[20] We can speculate that this stems from two views of the Naiyāyika. The Naiyāyika holds that everything non-eternal has a cause and that all causation is regular – each case of causation is an instance of a regularity. He is adverse to "haphazard causation" where, though something is supposedly caused, there is no regularity to be found. He then appears to feel that he must and has identified all those regularities concerning the causation of true cognitions. The Naiyāyika is also much influenced by (and shares much of the world view manifested in) the science of linguistics where the only right form of a word is one which can be or has been properly derived.

[21] This means then that the definition of knowledge (*pramā*) can no longer simply be: a true definite cognition other than recollection.

[22] pramāṇa =df arthāvyabhicāri-jñāna-nitya-hetu

[23] Of course, strictly speaking, the qualification true definite cognition other than recollection would actually end up being redundant.

[24] pramā =df pramāṇa-kāryam arthāvyabhicāry anubhava-niścaya-jñānam or minus the redundancies: pramā =df pramāṇa-kāryānubhavaḥ.

9
The Ascertainment of Perceptual Truth

Vācaspati Miśra sought to avoid the charge that external knowledge-ascertainment (*parataḥ prāmāṇya-jñapti*) leads to an infinite regress: since the knowledge that one cognition is true depends on another cognition, our knowledge that the second cognition is true must depend on a third, and so on infinitely. Vācaspati Miśra found a special kind of cognition which could serve as a terminating validating cognition: it could serve as a validator of other cognitions without itself requiring validation from another.

Indian philosophers make a distinction between the *production* of an instance of knowing (*prāmāṇya-utpatti*), or sound cognition, and the *ascertainment* that a cognition is sound (*prāmāṇya-jñapti*), is an instance of knowing. The production of knowing is concerned with the (proper) conditions which are necessary and sufficient to produce instances of knowing. We have now seen that the role of a knowledge-producer (*pramāṇa*) is to produce knowing; it constitutes the reasons – causes or grounds – why one veridically believes something (when he does). We will now examine the ascertainment of knowing. The ascertainment of knowing is concerned with the method of discovering or confirming that a particular cognition is an instance of knowing. It specifies which means are available for us to use in order for us to find out whether a cognition is veridical or not. In a sentence: knowledge-production specifies the reasons – causes and grounds – why a cognition *is* true and knowledge-ascertainment specifies the means by which we can *tell* that it is true.

Ascertainment of Knowing

Let us suppose we see (or think we see) a duck sitting in a far away pond. We either see it veridically or we see it erroneously. And there are reasons why we see it or we do not. But we can't tell which from just our seeing – though we are probably right, we could be wrong. If we proceed to walk over to where we take the duck to be and approach what we think is a duck, we should see that its appearance and behavior are in fact appropriate for a duck or that they are not; and from this we should be able to tell to some degree whether our prior perception was in fact veridical or not.

The ascertainment of knowing captures an intuition concerning our notion of justification (which is distinct from some which the production of knowing captures). If we take perception, the reasons why any one perception may be true are not immediately available to us. It is impossible to find out whether every condition, positive and negative, necessary for producing knowledge has been met. (We can in fact not even specify them all.) We can, however, make use of evidence which is available to us in the form of the contents of other cognitions.

The early Nyāya theory of the ascertainment of knowing (*prāmāṇya-jñapti*) stated that whenever a person has a given cognition he will have to apprehend or ascertain that that cognition is veridical or erroneous independently of his having that cognition. If one thinks about a cognition, he will be unable at that time to discover whether it is veridical or erroneous just by thinking about it. That is, when one is (reflectively) conscious of ones own perception (including its content), one is not also simultaneously conscious of the veridicality or erroneousness of that perception. This is in some ways similar to claiming that one is not justified in believing that *p* merely from the fact that one believes that *p*.

In order to ascertain then whether ones perception is veridical or erroneous, one must rely on an inference from another cognition. If one, for example thought he saw in the distance a body of water and being thirsty walked over to it and took a drink, the

perception of the cool water on his tongue would lead him to infer that he had indeed actually seen the water earlier. The early Naiyāyika would simply follow the chain of inference to a cognition which had not been contradicted by any other cognition and which one had not actually had any reason to doubt. It need not be a cognition which could not be doubted if new evidence came up or which could not be doubted in principle.

Ascertainment is Internal

The Nyāya theory of knowledge-ascertainment can be seen as a kind of internalism. It is internalistic in two ways. On the one hand, even though a perceptual cognition is caused, or generated, by objects and processes external to our inner mental states, cognitions, the route by which its ascertainment is derived is confined to these inner states. Ascertainment is phenomenological. On the other hand, in order for one to sure that he knows, it is not enough from him to be in the possession of a veridical cognition. He must have *ascertained* that it actually is veridical as well.[1] Such an approach is usually found in theories of justification and in theories of knowledge.[2] It is not enough that we are justified in knowing something, but we must be justified that we are justified. Or, we must know that we know in order to really know. In some sense this is true. Mere possession of a cognition which is sound is not enough. We want more. This is especially true, for example, if we want (to understand ourselves or) to *show* someone else that we are justified, that we have good reason to believe something.[3]

Yet the Nyāya theory may not be in some respects internalist in the latter sense. The Naiyāyika clearly and consciously distinguishes instances of knowing, the conditions which produce knowing, and the ascertainment of knowing. The core notion here, knowing, is not defined in terms of its ascertainment.[4] (Though the secondary notion, ascertainment, does make use of knowing and its conditions.) And though

ascertainment may not be necessary for knowing, it is an independent and practical endeavor.

The ascertainment of the truth of a cognition is a second order notion. It is a cognition of the property truth belonging to another cognition (of a physical object). That is, an ascertaining cognitions is a cognition that another cognition is true. We might symbolize it as follows: $C(T \text{ of } C(p))$ or $C(C(p)T)$; where p = physical object, $C(x)$ = cognition of x (or $C(xy)$ = cognition x is y), and T = being/is true.

In the example where S infers from a later confirmatory perception (which he had while drinking the water) that his prior perception of a body of water was true, we have an inferential cognition that the perceptual cognition of a body of water was true, that is, an inferential cognition of a perception's being true. And as we shall see in Vācaspati Miśra's account, the confirmatory cognition itself is also an inferential cognition of the truth of the later perception. Thus for the Naiyāyika the realm of ascertainment is one level higher.[5]

The question is whether a cognition of a possible instance of knowing is itself an instance of knowing. Do we know that we know. Or are we merely aware that we know. Here, at this level, the rules are slightly different, for we cannot soundly perceive that a cognition is true, even if all the conditions of knowledge generation for perception have been met. There is nothing to perceive according to the Naiyāyika which differentiates any cognition from any other with regards to truth.

This issue is somewhat parallel to the contemporary issue concerning the justification of a belief; perhaps more closely parallel when we put it in terms of the justification of an (occurrent) belief about the truth of an (occurrent) belief about the world.

How then do we know that we know. In Nyāya terms a sound cognition, or knowing, of the truth of another cognition is based on yet a third cognition. Even though we can have a sound mental perception, or reflective consciousness

(*anuvyavasāya*), of a cognition, we cannot have a sound mental perception of that cognition's *truth*. We may be conscious of what we see, but we cannot be conscious that what we see is true. According to the Naiyāyika the cognition of the truth of one cognition cannot be an instance of knowing without recourse to yet another cognition (which is not of course its content). At least a third cognition is required. The sound cognition (*pramā*) that one cognition is veridical is based on that third cognition.

Consequently, there can be no sound mental perception, or consciousness (*anuvyavasāya*), of the property *truth* of a cognition, even though there can be a sound mental perception of that *cognition* itself (excluding its truth). But we can infer the truth of a cognition from another cognition, a confirmatory cognition. An inferential cognition of the truth of a cognition will be an instance of knowing when it is inferred from another, confirmatory cognition.

Now, if we put this in terms of beliefs, we get the following: the inferential cognition (of the truth of a cognition is an occurrent belief, its content is true, that is, will be true if the cognition really is knowledge, and it, the cognition, will be justified, if it is soundly inferred from a true (occurrent) belief. And this inference will serve as an instance of justification. Thus it is in this way a justified true occurrent belief.

Ascertainment as Justification

We were reluctant to characterize the Nyāya account of the generation of knowing completely as a theory of justification because it lacks various traits usually linked to justification.[6] The Nyāya account of the ascertainment of knowing, on the other hand, does have many of these. I shall briefly mention two of the more significant of these.

The emphasis of the account of knowledge-generation is more on explanation that evaluation, although it is not necessarily devoid of any evaluative application. The purpose of the Nyāya account of the generation of knowing is primarily to explain what an instance of knowing consists in. We can with such an explanation or definition state

what a cognition must be in order for it to be an instance of knowing, but we cannot tell whether any give cognition does in fact meet these stated requirements. In addition knowledge-generation makes use of conditions which are of a non-evidential character, specifically in the case of perception. The sense-object connection is reliable cause, but not evidential grounds.

The Nyāya account of the ascertainment of knowing, on the other hand, is more evaluative. Although based on the generation of knowing, its purpose is the evaluation, discovery or confirmation, of a possible instance of knowing. It provides us with a method we can and often do follow to tell whether or not a given cognition fits the definition of an instance of knowing. In some cases it is action-guiding. It gives us a technique which we can follow to test a cognition for knowledgehood. In others, it is more explanatory in the sense that it explains how we habitually test some cognitions.

In addition, the ascertainment of knowing is based solely on what are internal psychological states, or mental quality-particulars (*mānasa-guna*). Though the states and processes involved are reliable, for example, inference, perceptual cognitions as resulting states, etc. they include none which are not characterizable in terms of evidence and reasoning, (unlike the processes leading up to perception). The generation of knowing, we have seen, includes in addition to these internal psychological states reference to external and causally efficacious states of affairs which cannot directly serve as evidence to the observer.

Infinite Regress Argument

The major argument against the Nyāya view that the truth of every cognition (or occurrent belief) must be validated (or justified) by means of another cognition was the argument that such a position leads to an infinite regress, an argument not unlike that used against non-foundationalist theories of justification (where a belief can and must be justified by another belief, there being no self-justifying beliefs) and various

internalistic theories of justification and knowledge (where the condition that a belief must be justified must itself be justified).[7] (But as we have seen the Nyāya view of knowledge-generation is not susceptible to such an argument because it is based on perceptions which are generated by reliable causal processes beginning with the object.) Let us look at this argument.

According to the earlier Naiyāyikas if we want to be certain that we know something, to find out whether any given cognition *A* is veridical, we cannot rely on our (reflective) consciousness of this cognition to tell, since no cognition has a characteristic which differentiates it as true. We must look instead to an inferential cognition *B1*. And this cognition will require another cognition *B2* for its "premise". But if we must rely on this other cognition as a true "premise" from which to make our inference, then we must be sure that this validating cognition *B2* is true. But how can we be sure of this without also relying on yet another cognition *B3*. The chain will never end.

In addition, how do we know that the (sound) inferential cognition *B1* (that *A* is true) is itself really an instance of knowing? That is, we may have an inferential cognition *B1* that a (prior) perception *A* is veridical, and this inferential cognition may be true, but how do we know it is? We need another cognition *C1*. And even if every one of the cognitions validating this inferential cognition (all the way back to the very first validating cognition if there is one) *C2*, *C3*, ... *Cn* are true, how do we know that they are without relying on ascertaining cognitions *D1*, *D2*, ... *Dn* for each of them.

How we know then that we have a veridical cognition (when we do) depends on our knowing that the ascertaining inferential cognition as well as the cognitions which support it are themselves veridical all the way down the line.

Two Aspects of Ascertainment

The infinite regress argument brings out two aspects of any ascertaining cognition (which is not self-ascertaining and self-aware). These present separate problems for the Naiyāyika. This first aspect concerns the valid derivation, or validation, of the ascertaining cognition and the second aspect concerns the true appraisal of the ascertaining cognition.

The valid derivation is based on sound inferences from established true cognitions - *B1* from *B2*. It is the application of certain knowledge-generators (which are internal) to validate (or justify) an ascertaining cognition of and about the truth of the cognition in question. The appraisal is a (sound) ascertaining cognition which judges that the cognition in question is true - *B1* of *A* (or *C1* of *B1*). It is sound cognition of a sound cognition - the knowledge that we know. Both of these aspects generate their own infinite regresses, each of which requires a different sort of response. For example, when we saw smoke in the distance, inferred that fire was present over there, and then went to investigate and indeed saw fire there, the ascertaining cognition that our earlier inferential cognition of fire was true both appraises the truth of this earlier inferential cognition of fire and serves to validate yet another inferential cognition that we did truly see smoke.

In actuality this distinction is not sharp. Each successive validating cognition along the chain is itself appraising a perceptual cognition "below it" as to its truth. In the earlier example, the confirmatory cognition is that our perception of the cool and sweet water rushing down our throat is in fact true. All of this stems from our original need of a chain of validation. That is, our initial perception is not obviously true and therefore needs to be ascertained, but an ascertaining inferential cognition derived from another perception which has itself not been ascertained is inadequate. Hence it too must be ascertained. Thus just as we are attempting to appraise the initial perception as

to truth with a cognition which has been validated, so the validating cognition is appraising a second perception.

Briefly then, every ascertaining cognition has two aspects: it is validated by a prior cognition (and might in turn validate another) and it appraises a cognition as to truth (and in turn may be required to be appraised itself).

Vācaspati Miśra's response

Vācaspati Miśra is sensitive to the argument from infinite regress. If a cognition is not itself apprehended as true (by itself or by our consciousness) at the time one has it, then we must resort to another (inferential) cognition to apprehend its truth. And since it is also not itself so apprehended, it will likewise require another cognition to apprehend its truth. But it too will require another cognition, and so on and so forth.

But Vācaspati Miśra, unlike most of his principle opponents, does not therefore conclude that in order to prevent the regress from even getting started *every* true cognition must be ascertained as true without relying on another cognition.[8] Nor does he reject completely the need for every true cognition to be known via an inference. Some cognitions need not be ascertained; while the rest, the majority, are ascertained as true by an inferential cognition.[9]

Thus Vācaspati Miśra divides cognitions into two broad classes, those whose truth is in need of ascertainment – ascertainment-dependent cognitions (*parataḥ prāmāṇya-jñapti*) – and those whose truth is not – self-ascertaining cognitions (*svataḥ prāmāṇya-jñapti*). He introduces the latter self-ascertaining cognitions into the Nyāya ontology to fight off various infinite regresses, while retaining the former ascertainment-dependent cognitions to meet the intuition which the earlier Naiyāyika attempted to capture, that we validate most cognitions by relying on evidence outside the cognition itself. The class of cognitions which are self-ascertaining comprises inferential cognitions (*anumāna*), analogical cognitions (*upamāna*), and mental cognitions, consciousness (*anuvyavasāya*).[10]

(We will find, however, that the way in which each of these classes of cognitions is self-ascertaining may not be the same.) All other cognitions must eventually depend on one of these in order to be ascertained as true.[11] Of this latter class, two subclasses are deemed central in the validation of other cognitions, so that they are extensively analyzed: confirmatory perceptual cognitions (*phala-jñāna*), and familiar perceptual cognitions.

Validation

We shall now turn to the validation aspect of ascertainment. Since both inferential and analogical cognitions require another cognition in order to function as validators, neither can end the validation chain. Thus validation must rest on either a familiar perceptual cognition, a confirmatory cognition, or consciousness.

Consciousness, on the one hand, requires another cognition for its very existence, so it requires at least another cognition when it acts as a validator. But only a familiar cognition or confirmatory cognition, on the other hand, may serve as the cognitive object of an instance of validating consciousness. So we will examine these latter two first.

Thus there are two basic kinds of primary (or externally oriented) cognitions which form the basis of validation: familiar perceptions and confirmatory perceptions (though confirmatory perceptions are ultimately reduced by Vācaspati Miśra and others to a subclass of familiar perceptions).

There must be some kind of cognition the truth of which is inferred in a special way, without having to rely on any other cognition. There must be something special about these particular cognitions which will serve as an inferential mark for an inference to its own truth. In this way, there is not a need of an inferential validation from outside the cognition.

Familiar Cognitions

Familiar perceptions are perceptions of objects with which we are thoroughly familiar, so familiar that we never second question them. We know these objects well. Over time we have had these perceptions so often (and perhaps under the right circumstances) that we automatically and without question assume they are true, we aren't in the least bit inclined without strong additional evidence to even entertain the thought that they might be wrong. Some examples might include perceptions of ones spouse, of a very important personal effect, or perhaps of ones own study. In the case of experts such as a gemologist the perception of a certain type stone might be an example.[12] These perceptions would be opposed to those which are of an unfamiliar sort, those about which we are not totally sure, such as seeing someone way off in the distance or seeing an object for the first time. Although there is likely to be a continuum from thoroughly familiar to totally novel perceptions, all that is needed is a special subset of familiar cognitions which are true.

This type of perception is considered special by Vācaspati Miśra because it allows us to infer its own truth (from some characteristic it possesses), and from this we can infer the truth of still other cognitions. It appears though that Vācaspati Miśra was not the first to hold such a view, other earlier philosophers are cited by Kamalasīla who shared this view. Kamalasīla (and Sāntaraksita), on the other hand, while agreeing that this type of cognition was special also felt that when a perception of a certain object attained this degree of familiarity it no longer was in need of (external) validation, it had become self-evident (*svata eva prāmāṇyam*).[13]

Jayanta Bhaṭṭa, on the other hand, while acknowledging that such familiar perceptions occur, finds nothing exceptional about them. They are simply ordinary perceptions which *appear* to be self-evident. For in addition to these repeated perceptions of the same individual object or types of object, we in these cases also act appropriately based on these perceptions and *repeatedly validate* these perceptions.

This unit – repeated perception, appropriate action, and validating perception – when repeated so many times is no longer distinguished as such and it appears as though the ascertainment of truth arises always and simultaneously with the repeated perception, (though each step including the last, confirmation, occurs each time.) This leads some to claim that the truth of repeated perception is self-evident. In fact, we just no longer notice the invariable ascertainment. Thus this class of cognitions is actually not any different from all the rest. Therefore according to Jayanta Bhaṭṭa *all* cognitions can be seen to require external validation.[14]

Vācaspati Miśra, on the other hand, holds that after the repeated perception of the same object (as a cognitive object (*viṣaya*)) there comes a point where any subsequent perception of that object is habitual, or familiar. Thus there is a type of cognition different from the rest. And this is given by Vācaspati Miśra a special epistemological status.

Belonging-to-that-class

But how are these familiar kinds of perception different from those of a less familiar kind? When we see, let us say, the desk at which we work every day and with which we are intimately familiar, we notice a similarity of this perception to ones that we have had before – to a kind of perception that we have had many times before and which has already and always been ascertained to be true. What occurs in this instance, is that we have a perceptual cognition of our desk. But we cannot also tell in this perception that it is itself a veridical perception. Nor can we tell in our consciousness of this perception that it is a veridical perception. Familiar perceptions, like all other perceptions, are *not* self-evidently true. When we are conscious of the perception in our consciousness, however, we are also conscious of this perception's being of the same kind as certain other previous perceptions, perceptions which turned out to be true. We then infer from this that this perception too is veridical.[15]

What is this characteristic – being of the same kind or belonging to that class (*tajjātīyatva*) – which differentiates a familiar perception from other nonfamiliar perceptions?

Vācaspati Miśra unfortunately says very little about what belonging-to-that-(same-)class consists in. We will have to reconstruct it from other writings. Before we turn to Udayana, let us take a look at what Kamalasīla says when he argues against those who, like Vācaspati Miśra, claim that the truth of a familiar perception is known by an inference from the mark of similarity (*tādrūpya* and *sārūpya*) rather than self-evidently. He discusses two possible interpretations of similarity which might be of interest here.

He first examines the position that a familiar perception is true simply because of the fact that it is a cognition (*bodharūpatā*). And this he obviously rejects, as would a Naiyāyika, because the reason (*hetu*) is inconclusive (*anaikāntika*), for there are of course cognitions which – according to his doctrine and the Naiyāyika's – are not true. He then examines the position that a familiar perception is true because it has a certain form (or content). That is, there are some characteristics which signify certain objects of true familiar perceptions (and consequently true cognitions). For example, let us assume that someone is thoroughly familiar with fire. Then for him any cognition which has the appearance of a certain bright orange form should be a cognition of a fire and consequently true. This he rejects as a deviating reason (*vyabhicāra*), since there are other nonfamiliar perceptions which share the same form. In our example, there are perceptions of Aśoka flowers which also have a bright orange form.[16]

Thus characteristics which are shared by objects of nonfamiliar perceptions are insufficient, they are not specific enough to rule out all the objects of nonfamiliar perceptions. If, however, these characteristics could be made more specific, that is, narrowed down so that they are unique to the cognitive objects of familiar perceptions, might they then be more viable marks?

Udayana, in his commentary on the *NVTT*, attempts to clarify this notion of 'belonging-to-that-class'. He points out that belonging-to-that-class cannot be the fact that the familiar perception is a member of the class of instances of knowing, or sound cognitions, since that is just what is to be proven by the inference. If it were so, it would be self-evident. He then points out that it cannot be the fact that it produces successful action, for that has yet to happen at the time of the familiar perception (for it can't be a connection with the later successful action, and it can't be a constant prior-absence.) And it is not some property in the cognition which can be established by perception. Udayana thus holds there is no property belonging-to-that-class which we see over and above a familiar cognition and its contents.

A cognition is differentiated by its cognitive object (*viṣaya*). The various differentiating attributes of an object differentiate, or individuate, the cognition. Certain of these attributes are repeatedly found together in objects which we perceive. When we perceive an object with various attributes as a cognitive object, we see a familiar object and thus have a certain kind of perception. Udayana concludes by stating that in his opinion belonging-to-that-class means being an experiential (non- remembering) cognition of such and such cognitive object which is distinguished by (its respective) such and such distinguishing properties (*tat-tad-upādhi-viśiṣṭa-tat-tad- viṣayānubhavatvam*).[17]

According to Mohanty, this interpretation of the inferential mark, makes the inference in question similar to that by which we establish the truth of unfamiliar perceptions.[18] Udayana's interpretation of belonging-to-that-class still appears too broad.

Udayana's interpretation does allow us to sort cognitions into various classes according to their objects, but it seems to fall short of offering us an adequate way to distinguish familiar perceptions from unfamiliar perceptions. It would seem that we require a single characteristic of familiar perceptions which is itself perceptible. Let us take the example of the gemologist given by Kamalaśīla. Does his perception of an

emerald and his perception of a gem new to him differ in any way other than by the fact that they are of different objects? Would a perception of an emerald today by this expert gemologist differ from one he had while he was an apprentice? But such an extra characteristic, over and above the simple perception of the object is rejected by Udayana. It is possible, however, to admit that the cognitive object might change as we became familiar and still deny that there is a qualitative change. That is, we see finer details and subtle nuances that we missed before. The cognitive object has changed for us; though it is the same external object, the same referent. Given this, the gemologist might think when he sees an emerald: I see an emerald and whenever I see an emerald, it in the end truly is an emerald, thus I know that I see an emerald. The point is that while there may not be a single extra characteristic marking familiar (and therefore true) perceptions, various types of perceptions can be classified by the classes of their objects and some of these may be pervaded by, included in, true cognitions.[19]

When we have a familiar perception we may be conscious of this property of belonging-to-that-class (as well as the perception). Then from this property, we can infer that the perception is true. The inferential cognition is thus validated by the mental perception, our consciousness. The familiar perception in turn can be used to validate other inferential cognitions which ascertain the truth of other cognitions, especially earlier perceptions.

Mental Perception

The cornerstone in all of this is mental perception, consciousness (*mānasa-pratyakṣa* = *anuvyavasāya*). Since consciousness is self-ascertaining, an instance of consciousness of a familiar perception (or a confirmatory perception) can terminate the chain of validation and thereby prevent an infinite regress.

Nothing in a perception is observable by our consciousness which can directly differentiate a true cognition from an erroneous one. All non-mental perceptions are

thus subject to doubt as to their truth status (and thus cannot form the base of a validation chain). The property of belonging-to-that-class of a familiar cognition, however, is observable by our consciousness and this consciousness is itself not subject to doubt (*āsaṅka*). Thus there is no question about the similarity of this familiar perception to another true one. An inference can then be made to the truth of the familiar perception in question and the first links for an even longer chain of validation are available if needed. Mental perception can thus form the anchor for a chain of validation.

Vācaspati Miśra, because of his fear of an infinite regress, retreated from the traditional theory where the chain of validation was terminated with an unascertained but also undoubted confirmatory perception and established in its place what he considered a more firm foundation – self-ascertaining mental perceptions. He did, however, retain the lack of doubt as a force behind non-external validation. Thus the cognition which terminates the chain of inferential validation, according to both Vācaspati Miśra and Jayanta Bhaṭṭa, is a perception (mental and external) which has no attendant suspicion as to its truth. It is a perception which is not ascertained as true or false, but is merely not suspected of being erroneous. The condition for termination thus is negative, a privation, rather than a positive validating cognition.

But for Jayanta Bhaṭṭa there is an additional requirement which is perhaps even more fundamental. The confirmatory perception must also be the perception of an object, or state of affairs, which would be expected to follow from that of the initial perception (which is in need of validation). That is, a confirmatory perception has a content which is to be expected as a result of the nature of the object, either as one of its effects or as some of its characteristics. For example, suppose that we (think that we) see a fire. If we reach out and touch it, and it burns us, then the perception of that burning will be a confirmatory perception (of the initial perception).[20] Thus the force of the confirmatory perception comes from the fact that the content of the perception is of

the expected effects or capacities of the object of the initial perception. A perception is confirmatory only if it is of the expected effects and only as long as it is not blocked by a suspicion that it is erroneous. A perception which is merely not suspected of being erroneous cannot then by itself validate any other cognition.

Thus lack of doubt is not sufficient in itself according to Jayanta Bhaṭṭa to give a cognition the capacity to validate without itself being validated. Let us now return to mental perception, or consciousness, as it is understood by Vācaspati Miśra. Is its capacity to validate based on simply the fact that it will not be doubted? If not, then what is its capacity to validate based on?

The lack of any suspicion regarding the truth of a mental perception, a negation, and the existence of that mental perception, a positive, are not themselves sufficient to account for any internal validation. For there are many cognitions which exist without any suspicion as to their being erroneous and which are nevertheless not internally validated. In addition, the validation derived form mental perception is applied to only inferential cognitions about familiar perceptions. Thus, the lack of doubt alone cannot provide a mental perception with its (self-) validation.

Both Vācaspati Miśra and Jayanta Bhaṭṭa anchor the chain of validating inferential cognitions on a particular terminating cognition which is not in doubt. They differ, however, on why it is not in doubt. Jayanta Bhaṭṭa, on the one hand, holds that a particular confirmatory perception is not in doubt for reasons which are specific to the particular perception. One has no knowledge or experience why *this* particular confirmatory perception and perhaps only this particular perception should be in doubt. One cannot doubt if he has not experienced the two alternatives of a (disjunctive) doubt.[21]

Jayanta Bhaṭṭa does state in an example that the cognition of successful action (= confirmatory perception) of one who has acted on an initial perception is true (*avinābhāva*) and hence there is no doubt about.[22] I assume that what he means is that

when a confirmatory perception is in fact true (truth-generator generated), there will be no grounds for doubt to occur. I'm not sure whether or not he also means that if no doubt occurs, then the purported confirmatory perception must be true. If he does mean the latter, then his rationale becomes closer to Vācaspati Miśra's.

Vācaspati Miśra, on the other hand, holds that a mental perception is not in doubt because in general no mental perception should be held in doubt, since *all* mental perceptions have been observed to be true. We have no experience to doubt the truth of *any* mental perception. And this is where the validation according to Vācaspati Miśra becomes self-validation. The reason behind the lack of doubt makes the difference.

Thus the real strength of Vācaspati Miśra's position would seem to derive from the empirical fact that mental perceptions are never unfaithful with regard to the object, never erroneous (*artha-vyabhicārin*).[23] There are no erroneous mental perceptions (*anuvyavasāyābhāsa*). Mental perceptions then are necessarily true. And what we are conscious of, including the property belonging-to-that-class, has necessarily been perceived, though it may still be illusory. There actually is a perceptual cognition of which we are conscious, though it may not be veridical. Given this, the consciousness of one perception's being of the same kind as another is true and can thus serve as a "premise" for an inference to the truth of the perception itself. We do see what we think we see, and when we see certain things, we invariable really do see them.

Let us now take a look at Vācaspati Miśra's understanding of self- validation. From what we have seen so far, self-validation of mental perceptions is not reflexive (nor of course transitive). It is unclear whether it is intransitive (I'm not even sure this conception of validation or justification is meaningful) or merely unvalidiated, that is, not in need of validation. The important point is that it does not draw its "legitimacy" from an outside source, another cognition (or anything else) however it is analyzed. Self-validation is simply the being necessarily true of mental perception and the lack of

any suspicion of its being erroneous. Self-validation is simply the fact that mental perception is necessarily true and that there is no suspicion that it is erroneous.

Mental perception is itself, however, a validator. The significance of this is that mental perception is capable of validating another cognition without itself being in need of external validation. But mental perception can validate only inferential cognitions referring to familiar cognitions, it is not – or cannot be? – used to validate any other kind of inferential cognition. It cannot, for example, validate directly an inferential cognition of the external world.

This brings us to an interesting point: why must a mental perception be *necessarily*, or invariably, true in order to begin the chain of validation, that is, be self-validated. Earlier we saw that all that was needed to begin an ordinary inference was a perception which was true (and consequently reliably generated). And perception in general (true as well as erroneous) is obviously not necessarily true since many perceptions are erroneous. This has to do with the distinction between knowledge-generation and knowledge-ascertainment. As we saw earlier, knowledge-generation is external, at least in part, and definitional. Here we have seen that knowledge-ascertainment is totally internal and action-guiding (for the discovery or confirmation of knowledge). The perspectives and functions are different. It is internal in that only cognitions are involved. Any validation must rely solely on a cognition, the cognition in question or another cognition. And it is action-guiding in that it consists of a way (or *method*) for discovering or confirming whether a given cognition is true, it is not a set of *criteria* by which a cognition can be identified or classified.

As we have seen, the need for ascertainment in the first place is predicated on the fact that cognitions are in general not differentiated with regard to truth. Hence some sort of external ascertainment of their truth-value is needed. If one accepts this assumption (which underlies the need for ascertainment) – that any cognition which is not somehow differentiated as to truth must have its truth externally ascertained – then

any member of a class whose members are all true should also not need to be ascertained. (There is a question though of whether or not it must still be cognized as true as well.) Thus, in order for any mental perception to serve as a basis for a validating inference, all mental perceptions must be true. Otherwise, some inferences would be sound and some not as some mental perceptions were true and some not-- this would not give us a theory of validation.

It would appear then that Vācaspati Miśra has incorporated into Nyāya epistemology certain foundationalist elements. Consciousness, mental perception, of the property of belonging-to-that-class which cannot be erroneous plays a role similar to that played by the perceptual awareness of sense-data of recent proponents of sense-data. While the implementation of the two partial analogues is very different because the different metaphysical assumptions, basic structure and desired outcome is close.

For the Naiyāyika, a mental perception of both a perception of an external object and part of its content, the object's property belonging-to-that-class, leads to the inferential cognition that the perception of the object is true - we really do see the object. For the proponent of sense-data, the awareness of sense-datum allows an inference that a physical object (which is "indicated" by the sense-datum) really exists.

The significant problem for both is the identification of their respective objects: the property of belonging-to-that-class and the entity of a sense-datum. In each case, the specification of what is meant has been obscure and the identification or discovery of the object so specified has been is difficult.

Thus Vācaspati Miśra has attempted to stop the regress by deriving, or validating, the ascertaining cognition by an inference or chain of inferences ultimately from a true instance of consciousness, a cognition not itself in need of validation, and not from another ascertaining cognition. This consciousness can serve as a starting point, since it is true, necessarily true according to the Naiyāyika, for all instances of consciousness

are true. Even if simply being true is not sufficient, which it is according to some kinds of justification theory, being necessarily true should be.

Self-Appraisal

But even though being necessarily true is more than sufficient for validation, it may not be enough for appraisal. The opponent of the Naiyāyika has claimed that simply being true isn't enough, it must be ascertained to be true. And we can't be sure that this ascertaining cognition isn't false, so it too must be ascertained to be true. And this also leads to an infinite regress as one ascertaining cognition is piled on another.

If we take Vācaspati Miśra literally, it appears that there is no actual - rather than potential - appraisal that the mental perception is true. But instead and what is more important is that there is no cognition suspecting that the mental perception is erroneous. It is this lack of any suspecting cognition which is significant, rather than the presence of a certain ascertaining cognition. And although this lack of suspicion is explained by the fact that we simply have never had an experience in the past that any mental perception is erroneous, the fact is that neither have we generated via an inference from this lack of suspicion a corresponding positive ascertaining cognition that the mental perception in question is true.

Vācaspati Miśra's interpretation of self-appraisal is unclear. It is doubtful that mental perception, consciousness, can be self-appraising in a reflexive sense. In the first place no cognition is aware of itself (self-illuminating, *svaprakāśa*) according to traditional Nyāya metaphysics, thus a mental perception cannot be self-aware of its own content, much less the truth of its content. And a mental cognition cannot be appraised by another (ascertaining) mental cognition. There cannot be a mental cognition of a mental cognition. This situation has also been ruled out in Nyāya metaphysics; a mental cognition can only be known by inference. And if second mental perception were necessary, why wouldn't a third, a fourth ... also be necessary?[24] So unless there is a

emendation to Nyāya metaphysics especially for this purpose, there can be no self-appraisal of mental perception.[25]

Thus Vācaspati Miśra's interpretation is most likely that a mental perception is self-appraised in the sense that there is *no need* for us to appraise it, since it is necessarily true. If it could not be erroneous, why should we want to appraise it of its truth? It is not a question as to whether or not we must be aware of the truth of a cognition, only that true cognitions should be distinct from erroneous ones.

Thus mental perception is self-ascertained in the sense that it is not in need of (external) validation (in order to validate other cognitions) and it is not in need of appraisal (in order to distinguish from erroneous cognitions).

But the ascertainment of a cognition doesn't require that just the terminating cognition, mental perception, be ascertained, but that each link in the chain, including the last, must be ascertained. These links are inferential cognitions. And to prevent another infinite regress according to Vācaspati Miśra, they too must be self-ascertained. Although it has been suggested that only those inferential cognitions involved in ascertainment are self-ascertained, the text of Vācaspati Miśra indicates, though not decisively, that for Vācaspati Miśra all inferential cognitions are so.[26]

Inferential Cognition

Inferential cognitions are not self-validating. They depend on the cognition on which they are based for their truth. Nor are they necessarily true.[27] There are both sound and unsound inferential cognitions which are indistinguishable from an internalist perspective. They appear the same. They are considered, however, to be self-appraising; there is no suspicion that they are erroneous (or invalid?).

According to Vācaspati Miśra, an inferential cognition is self-ascertaining (= self-appraising) in that we have no suspicions regarding its concomitance (or correspondence) to its object since it is derived from an inferential mark which does not

deviate from the object to be inferred. For there can be no cognition of an inferential mark without there being an inferential mark, and no inferential mark without an object to be inferred. Hence, an inferential cognition which is derived from an inferential mark whose concomitance with its object has been cognized comes into existence as unshakable, or firm (*niṣkampam*).[28]

Thus an inferential cognition arises with a sense of conviction, without any attendant doubts. But exactly how it is self-ascertaining is unclear. It appears that what Vācaspati Miśra intends is that inference is self-appraised in that it is such that no suspicions as to its erroneousness occur. But then why do they not occur. Vācaspati Miśra says that it is because we are aware that the inferential mark is concomitant with the object to be inferred. When we make an inference, though the perception and concomitance upon which the inference is based may ultimately be erroneous, our psychological reasoning based on the cognitive object (*viṣaya*) and cognitive concomitance is mechanical. We thus have no grounds for doubting our inference. This does not, however, rule out the possibility that the inference will not later be found to be unsound.

Since a full discussion of the self-appraising aspect of inferential cognitions would take us too far astray from the central topic of perception, I must leave this topic open for further discussion in a sequel.[29]

Confirmatory Perception

The other kind of non-mental perception besides familiar perception which plays a fundamental role in the validation of cognitions is confirmatory perception. We have seen that for Jayanta Bhaṭṭa it is the ultimate anchor for validation. For Vācaspati Miśra, however, it is not only not the terminus of validation, but it is not even given a separate existence, it is but a subset of familiar perceptions. It still plays much of its earlier role, but the source of its power comes from elsewhere. The role of confirmatory

perceptions is to validate an earlier perception, which does not manifest itself as true. But the power that a confirmatory perception has to validate this earlier perception is derived from the fact that it is a familiar perception. That is, it is inferred to be true insofar as it is of the same class as earlier perceptions which were at that earlier time themselves ascertained as true. These too are inferred to be true because they are of the same class as still earlier perceptions. And so on.[30] There is no beginning to all of this, but the Naiyāyika feels this sort of regress is benign (and preferable to a destructive regress). But its acceptability is dependent on the doctrine of continuous and beginningless rebirth.

Although Vācaspati Miśra does not explicitly say this, it is likely that this applies to all familiar perceptions, not just confirmatory ones. Thus every inference from the consciousness of belonging-to- that-class of a familiar perception depends on such beginningless analogical inference. Thus the first link in the chain of validation is not totally without the need of any validation, but depends on another chain of validation which is beginningless, and supposedly harmless. A beginningless series of analogical inferences is thus preferred to a single, but still problematic, inductive inference.

Conclusion

Vācaspati Miśra, motivated by a fear of various infinite regresses, again embraced elements foreign to the Nyāya system before him. Because of the assumption that ascertainment concerns the ascertainment of cognitions rather than their content, there is the possibility of a regress of appraisal, if it is accepted that all true cognitions must be distinguished as true by us. The logical way out is to allow cognitions which are differentiated as to truth, but which do not need to be discerned as such. But this may introduce the element of necessary truth. This also provides a ready and firm foundation for the process of validation, not merely a cognition which could merely start the process (on a provisional basis).

As a consequence, Vācaspati Miśra incorporated revisions into the Nyāya system which acceded to tendencies to see knowledge-ascertainment rigidly in terms of knowledge-generation and which therefore diminished the power that the traditional Nyāya theory of ascertainment had possessed from being (an analogue to) a theory of practical justification.[31] Vācaspati Miśra's ascertainment is still presumably fallible, but his acceptance of a form of self-ascertainment as something more than provisional puts pressure on one to accept error of ascertainment as nothing but a linguistic error, a mistaken description, rather than a knowledge-claim that has been blunted or overthrown. Thus Vācaspati Miśra's position tends to blur the division between the generation and the ascertainment of knowing – the two analogues of conditional (or theoretical) and practical justification – and lessen the advantages of each.

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[1] Jayanta Bhaṭṭa, however, feels that ascertainment after we have already acted is for the most part useless, save as a reminder that we learn trustworthy people are indeed trustworthy. See Jayanta Bhaṭṭa, *NM*, p. 158-59.

[2] See Jonathan Dancy, *Contemporary Epistemology*, p. 46-8.

[3] See William B. Alston, "Two Types of Foundationalism", *Empirical Knowledge*, p. 85-6.

[4] For an interesting discussion of the problem of whether knowledge is knowledge simpliciter or knowledge of knowledge and the Naiyāyika theories of knowledge-generation and knowledge-ascertainment see Matilal, *Perception*, p. 160-3.

[5] This excludes for Vācaspati Miśra the terminating mental cognition, which does not cognize the truth of a perceptual cognition as its object, though it does cognize the perceptual cognition itself.

[6] See William B. Alston, "Concepts of Epistemic Justification", *Empirical Knowledge*, *passim*.

[7] See Jonathan Dancy, *Contemporary Epistemology*, p.46-48.

[8] For an interesting discussion of these theories, see J.N. Mohanty, *Gaṅgeśa's Theory of Truth*, p. 15-24.

[9] As we will see, the Buddhists Śāntarakṣita and Kamalaśīla and perhaps a Jain, Akalaṅka Bhaṭṭa, espoused a similar theory before Vācaspati Miśra, the first Naiyāyika recorded as doing so.

[10] *NVTT*(K), pp. 11-13.

Udayana adds another class of self-ascertaining cognitions, awareness of a substantive (*dharmi-jñāna*). See *Pariśuddhi*, p. 99-100.

[11] Cognitions of authority (*śābda*) are according to Vācaspati Miśra also dependent on other cognitions for validation.

[12] See *Tattvasaṅgrahapañjikā*, p. 780.

[13] *Tattvasaṅgrahapañjikā*, p. 781.

[14] *NM*, p. 160.

[15] See *NVTT*(K), p. 12.

Although this is not strictly a deductive inference, it is an acceptable inference according to the Nyāya theory at the time.

[16] *Tattvasaṅgrahapañjikā*, p. 780.

[17] *Pariśuddhi*, p. 96-97. See also J. N. Mohanty, *Gaṅgeśa's Theory of Truth*, pp. 52-53 and Matilal, *Perception*, p.166.

[18] J. N. Mohanty, *Gaṅgeśa's Theory of Truth*, p. 53.

[19] Unfortunately Vācaspati Miśra does not make use of the classification which occurs in the savikalpaka stage of process in his explanation of familiar cognitions.

[20] *NM*, p. 159.

[21] *NM*, p. 160.

[22] *NM*, p. 159.

[23] It might be questioned as to whether Vācaspati Miśra left open the possibility that there might still be an erroneous mental perceptions in the future. I presume that for Vācaspati Miśra it is a fact of nature that our mental perceptions are always true.

[24] See chapter two.

[25] This has been done by at least one Naiyāyika, Vardhamāna. See B. Matilal, *Perception*, p.176.

[26] *NVTT*(K), p. 12-13. The major point is that Vācaspati Miśra discusses all four classes of sound cognitions, instances of knowing, (including mental perceptions) and divides them into those which are self-ascertaining and those which are not. He intends to be complete. Yet he makes no subdivisions of sound inferences.

[27] Here I might add, 'inferential cognitions' means both true and erroneous inferential cognitions (*anumitti* and *anumittyābhāsa*).

[28] *NVTT*(K), p. 12.

[29] For two interesting discussions of this problem see Mohanty, *Gaṅgeśa's Theory of Truth*, p.49-51 and Matilal, *Perception*, p. 168-71.

[30] *NVTT*(K), p. 12.

[31] See Alvin Goldman, "The Internalist Conception of Justification", *Midwest Studies in Philosophy V*, p. 28-29.

10
Conclusion

The Naiyāyika theory of perception is a causal theory of direct perceptual knowing: a theory of direct realism and a causal theory of perceptual knowing. It also includes after Vācaspati Miśra a foundational theory of justification (of knowing).

A Theory of Direct Realism

There is a real, external world which is accessible to cognition, but which exists independently of cognition. When we are directly aware of an object in this world, it follows that the object exists externally at this time, appears to us as it is at this time, makes up the content of our perception, and is cognized immediately.

The Naiyāyika defends the existence of an external real world, a world which exists independently of its being cognized. Physical objects – the substrate and its various attributes at a certain time – exist and persist through time; their condition at a particular time is embodied in the attributes possessed at that time. They consist of various repeatables – a substance-particular substrate, essential and accidental quality- and motion-particular attributes, and abstract universals – arranged in a network of differentiating relationships.

In order for the content of perception to be identical to a portion of the external world, a physical object, the object cognitively referred to and the perceptual cognition must exist simultaneously. (Unless, that is, it is proposed that we may perceive things in the past as long as we perceive them as happening in the past.) The Naiyāyika limits

ordinary perception to the present time, to objects simultaneous to it. This is problematic, if it is admitted that perception and its content is the effect of a causal complex which includes the object and it is assumed that the object referred to and the object connected to the sense are the same. We found that the Naiyāyika avoids the time-lag argument by claiming that the cause which produced the perceptual cognition, the object as connected to a sense (or the sense-object connection), persists and continues to support the perceptual cognition. Thus the determining cause can be identical to the object to which the cognition refers, since they exist at the same time, even though the object and the sense-object connection both cause the perceptual cognition and exist prior to its arising. The relationship between the determining cause and its result still needs some clarification.

The constituents of the content of each perceptual cognition as formulated by the earlier Naiyāyikas are all cognized immediately. Each constituent of a physical object (as a unit) is cognized originally. None is cognized secondarily; none of them would not be cognized, if some other constituent were not cognized. Even whole substances are cognized immediately.

Perception according to the earlier Naiyāyika is simply the sensory experience which is born of our senses. And the content of a veridical perceptual cognition is the real, external physical object as it is. No distinction is made between the object purely in itself and the accretions of interpretation. Perception was not understood to be either purely conceptual or purely preconceptual, without meaning or classification.

The content of nirvikalpaka perceptions as formulated by Vācaspati Miśra is similarly found to be cognized immediately. No component which is cognized depends on the cognition of anything else. Savikalpaka perception, on the other hand, is mediate in a couple of important ways: the instances and instantiations of the object and its attributes in the past are cognized mediately as is the network of differentiating

relationships, those between these past occurrences as well as those between the components of the present object.

Mediate cognition is usually understood as the result of a causal process, or an inference, or a mental construction, etc. Vācaspati Miśra, however, construes savikalpaka perception as conception. Vācaspati Miśra thus distinguishes between conception and construction and the like. Those elements which belonged to the object in the past are cognized mediately; they are not, however, constituents which fill out the present physical object, but are rather additions to it which allow for its classification. The present physical object, on the other hand, is cognized immediately.

We found that a portion of the present physical object is mediately cognized - the network of differentiating relationships. This network might be deemed the result of some sort of mental reasoning. Or it might be challenged as being the result of imagination. The Naiyāyika would respond that in either case the relationships are, like the components they relate, a portion of the external physical object, even if they aren't revealed immediately. Even if the physical object (in a particular state at a certain time, *jātyādimadartha*) is in a sense seen mediately, it is still the external object revealed.

The fact that Vācaspati Miśra appears to neglect the significance of the network of differentiating relationships between the component of the present physical object likely follows from his understanding of the problem of conception. This problem was first formulated by Diṅnāga. Because of his preoccupations he ignored conceptual cognitions of certain complex objects, those which possess parts or adjuncts which have their own attributes. Vācaspati Miśra, likewise, fails to account for conceptual cognitions - savikalpaka perceptual cognitions in his case - which are of complex objects and thus does not appreciate the need to specify which components differentiate which other components.

The Naiyāyika is motivated to claim that the integration and the classification of an object in a savikalpaka cognition is still within the realm of perception, unlike his

Buddhist critics, because he holds that universals and physical objects in a particular state (*jātyādimadartha*) exist externally and are perceived, not mentally constructed. The integration of the components into a physical object in a particular state is merely the revelation of what is already there and the classification of the object adds nothing to the present physical object. No inference is involved and the physical object is not mentally constructed.

Nor is the object intertwined with language. Vācaspati Miśra severs the meaning of words from the words themselves. The repeatables expressed by words are already perceived in the nirvikalpaka stage and thus pose no problem in a savikalpaka stage of perception.

Those components of the object in the past are adjuncts which give meaning to the classification, or differentiation, of the present object and are cognized mediately, but they are not constructed. They can thus still be identical to a portion of the real, external world. Vācaspati Miśra here is willing to give up cognitive immediacy (without granting mental construction), but he retains the identity of the cognitive content with the external world. In doing so he enlarged the notion of the world which is accessible to perception. Perception is no longer restricted to a particular portion of the concrete world at a specific time. We may now perceive generalities as well as identities across time, though they must be perceived mediately. Now only repeatables are perceived immediately.

A Causal Theory of Perceptual Knowing

The Nyāya theory of perceptual knowing combines a causal theory of knowing and a causal theory of perception. It is a causal theory of knowing in that it provides conditions applicable to a definition of knowing which are causal, albeit conditions which are alternatives to those used by the Naiyāyikas in their definitions of perception. A veridical perceptual cognition must spring from a certain, sound cause – a proper

sense-object connection. This satisfies the intuition that there must a reason why one knows something. It is a causal theory of perception in that there must be a certain and proper causal link between a cognition and the world in order for it to be a veridical perceptual cognition, a causal complex which includes a sense-object connection. When this link is present, the content of a veridical perceptual cognition is entirely determined by that to which it refers. The causal link between the world and a perceptual cognition of it and the reason the content of the perceptual cognition is veridical are not treated separately by the Naiyāyika; they are thus in the eyes of the Naiyāyika elements of a single theory – a causal theory of perceptual knowing.

While knowing is not explicitly defined by the condition that it be the result of a particular set of reasons – causes and grounds – it does entail that such a condition be met. In the case of perceptual knowing a specific list of causes is enumerated which are required for the arising of perceptual knowing. If this set of reasons is present, a veridical perceptual cognition will arise; if the veridical perceptual cognition does not arise, the set of reasons are not present.

We found that this condition is a reliable channel or precondition for perceptual knowing. The presence of certain causes reliably produces veridical perceptual cognitions and a veridical perceptual cognition reliably ensures that the object to which it refers does exist. Other routes to veridical perceptual cognitions are not admitted. Routes to veridical cognitions which are not one of the other three forms of knowing are similarly not admitted. Besides the four reliable channels to the four kinds of knowing which the Naiyāyika has given, there are no other routes to veridical cognitions, there are no less reliable routes. All veridical cognitions are instances of knowing. Thus the range of veridical cognitions is construed too narrowly and the range of knowledge-producing conditions too broadly. This results in the lack of a divergence between veridical cognitions and knowledge-producing conditions. The Naiyāyika has foreclosed the possibility that there can be veridical cognitions which are

not properly caused, which are not the result of knowledge-producers. This makes it difficult for the Naiyāyika to account for guesses which just happen to be right or perceptual cognitions which are improperly produced but just happen to be true.

The causal complex which leads to veridical cognitions differs from that which leads to erroneous cognitions. For the earlier Naiyāyikas the difference in the complexes lies solely in the mental portion of the complex. In a veridical cognition these mental causes serve to aid the production of the cognition but do not determine any of the content. The content is determined solely by the sense-object connection. In an erroneous cognition one of these causes, a memory trace of a similar object, is activated and proceeds to affect the content of the erroneous perceptual cognition which it helps produce. This memory trace determines a portion of the content. The sense-object connection thus determines only a portion. Therefore, whenever the content of a perceptual cognition is determined solely by that present physical object to which it refers, the cognition will be veridical. And whenever the content is not determined solely by that physical object, the cognition will be erroneous. And as we saw before, the reverse also holds. Whenever a perceptual cognition is veridical, its content will be determined solely by the object as connected to the sense, or the sense-object connection.

The determining cause of perceptual cognition is that object to which the content of the perceptual cognition refers. We found that even though the determining cause of a perceptual cognition, the object as connected with a sense, exists before the perceptual cognition it can, nevertheless, still be the object to which the content refers, even when it is assumed that the content does not refer back in time. This is so because according to the Naiyāyika the object which determines the content continues to exist and to exert influence on the content of the resulting cognition (much like the nature of a part affects the nature of the whole). This persisting object can thus be identical to the object to which the content of the contemporary cognition refers. It remains unclear, however,

how an object can influence the content of a cognition contemporary with it, the production of perceptual cognitions differing from the creation of a whole.

The content of the nirvikalpaka stage of perception, which is introduced by Vācaspati Miśra, is also determined by the sense-object connection. While there are mental causes included among the causes of this stage, none of them contributes to the nature of the content of the resulting nirvikalpaka perceptual cognition. We found, on the other hand, that the content of savikalpaka perceptual cognitions is not determined entirely by that portion of the external world to which it refers. That portion of the content which refers to past instances and instantiations is determined by the recollection produced earlier by the sense-object connection.

The Naiyāyika does not differentiate causal determination from causation. He recognizes something like determination as a form of causation, but rejects all forms of remote causation. The Naiyāyika thus endeavors to show that all of the objects to which a perceptual cognition refers are contiguous causes of the cognition, not remote. When a drum is struck, we see the drum because the sense of sight goes to the drum; on the other hand, a sound comes to the ear and we hear it and not the drum. The state of an object in the past cannot determine the nature of its cognition far later.

The remaining portion of the content, the present physical object, is not even entirely determined by the physical object as connected to the sense, or the sense-object connection, either. The differentiating relationships of the components of the present physical object are determined by the recollection or perhaps by the causal compound consisting of the recollection and the sense-object connection, but not by the sense-object connection alone.

If remote causal determination were to be accepted, then it would be possible that that content of a veridical savikalpaka perceptual cognition which pertained to the object in the past could still be determined by that to which it refers. (The differentiating relationship pertaining to the present object could not be so determined

since it, being new and unique, would not have been seen before and could not have deposited memory traces through which remote determination could operate.) But remote determination isn't accepted by the Naiyāyika. Thus a portion of the content of savikalpaka perceptual cognition is determined by something other than the sense-object connection, or object as connected to a sense, and does not qualify as perceptual in a causal theory of perception. Most significantly a portion of the present physical object is not determined by the sense-object connection, the network of differentiating relationships.

Veridical perceptual cognition is the base for all of the other forms of knowing. A cognition must be or be based upon a veridical perceptual cognition to be veridical itself. Our knowledge of the world ultimately derives from the real, external world via perception. Though Vācaspati Miśra considers nirvikalpaka perceptual cognitions to be veridical, they are not the base of a savikalpaka perceptual cognition's veridicality. The content of a veridical savikalpaka perceptual cognition is not determined by the preceding, nirvikalpaka cognition, but rather by its own causal complex, which shares all of the causes with the complex of the nirvikalpaka perception save the recollection. Thus the reasons that a savikalpaka perceptual cognition is veridical are the reasons which produced it, its causal complex, the sense-object connection especially.

A Foundationalist Theory of Justification

The collision of two intuitions occurs in the notion of the ascertainment of knowing. On the one hand, what we think we know occasionally turns out to be false. On the other hand, even when we are wrong, there is something about which we are sure: what we thought we saw. The earlier Naiyāyika's understanding of ascertainment tilts toward the first of these. The ascertainment of veridicality is extrinsic. The confirmation or refutation of the veridicality of any given cognition requires the recourse of another cognition.

Vācaspati Miśra's theory of knowledge-ascertainment (*pramā-jñapti*) is a form of foundationalism. Our justification that a particular cognition is an instance of knowing is ultimately based on some other cognition. In Vācaspati Miśra's theory ascertainment has two elements: validation, or justification, of the ascertaining cognition and appraisal, or assessment, by the ascertaining cognition. We found that Vācaspati Miśra preserved much of the earlier Naiyāyika's view that ascertainment is extrinsic. Vācaspati Miśra retains the Naiyāyika doctrine that the validation, or justification, that a cognition is veridical depends on another cognition, but modifies it. He does not anchor the line of justification directly in ordinary perceptual cognitions. But he does single out certain perceptual cognitions as having a special status. Vācaspati Miśra, however, admits that the appraisal of those cognitions involved in validation are intrinsic. We don't need to know that we know that we know.

Validation is ultimately based on the mental perception, or consciousness, of a perceptual cognition of familiar objects. The confirmation of inferential cognitions, perceptual cognition of objects which are not familiar, etc. are all based on inferential cognitions which are derived from the mental perception of the perception of a familiar object. Thus mental perception is the base for the validation of the veridicality of all cognitions. The mental perception of the initial perceptual cognition (and its content) does not need to be validated by another cognition, for it is assumed to always be veridical. We cannot be wrong about what we *think* we see. Though it does not itself assess the veridicality of any cognition, it may serve as the base for an inference resulting in an inferential cognition which appraises the veridicality of the cognition of which it is conscious, when that cognition is a perceptual cognition of a familiar object.

The progression from consciousness of a perceptual cognition including its content to an inferential cognition of the content's veridicality serves as a bridge from knowledge about the internal world, our thoughts, to knowledge about the external world, the physical object. This bridge – from the certain knowledge of internal states,

what we think we see, to knowledge of external facts, what actually is the case – is similar in a significant way to that found in many sense-data theories of perception, but it is a realist theory. In these theories the incorrigibility of the awareness of sense-data is said to allow for the inference to the certitude or probability that the corresponding physical object exists. For example, if we see what looks like a cow, the chances are that we see actually is a cow.

Knowledge-appraisal, on the other hand, is no longer considered by Vācaspati Miśra to be extrinsic. The cognitions involved in the ascertainment of the veridicality of a cognition do not themselves need to be appraised, their veridicality does not need to be ascertained. The veridicality of mental perceptions is considered veridical virtually by nature, it is never questioned, and that of inferential cognitions is also in some way assumed to be veridical. There is thus no infinite regress here either.

The early Naiyāyika is a realist across the board. In addition to a realist ontology he ascribes to a realist theory of perceptual knowing.

The earlier Naiyāyika champions a direct realist theory of perception. The external physical object forms the content of perceptual cognitions and is immediately cognized and devoid of mental construction. Vācaspati Miśra attempts to preserve this when he incorporates conception into a second stage of perception. He does allow for mediate cognition within perception, but holds that the content is devoid of any mental construction. He expands the range of the real, external world accessible to perception in the process.

The early Naiyāyika embraced a causal theory of perceptual knowing. The content of perceptual cognition is determined by the external physical object to which it refers. The determining cause of perception and the cognitive object exist simultaneously, they are one and the same.

Vācaspati Miśra incorporates conception in causal terms and hopes to retain the position that at least the present core of the content is still determined by the present external physical object. Vācaspati Miśra admits that a portion of the content of savikalpaka perceptual cognition is not determined by the object to which it refers, even though that object is externally real and the proper referent of the cognition. But he needs to explain whether a portion of the present physical object is in fact not determined by the object to which it refers, and if so, how it is so determined.

The earlier Naiyāyika advocates a theory of justification in which no cognition is itself validated nor any cognition of it validated, or justified, without recourse to another cognition, but he neither provides an anchor for justification nor sanctions any sort of coherence. Vācaspati Miśra espouses a theory of justification which rejects an indeterminate or a coherence theory of validation for a foundational theory. Validation is based on the certain awareness of external objects with which one is intimately familiar.

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ABBREVIATIONS

KKK	*Khaṇḍana-Khaṇḍa-Khādya* by Srī Harṣa. ChSS 21.
KKK(V)	*Khaṇḍanaphakkikāvibhajana(vidyāsāgari)* by Anandapūrṇa. ChSS 21.
NM	*Nyāya-mañjarī* by Jayanti Bhaṭṭa. Edited by Suryanarayana Sukla. KSS 106.
NVTT	*Nyāya-varttika-tātparya-ṭīkā* by Vācaspati Miśra. Edited by A. Thakur.
NVTT(K)	*Nyāya-varttika-tātparya-ṭīkā* by Vācaspati Miśra. Edited by R. S. Dravid. KSS 24.